

Distributed Energy Storage solar





Overview

What are distributed energy resources?

Distributed energy resources, or DER, are small-scale energy systems that power a nearby location. DER can be connected to electric grids or isolated, with energy flowing only to specific sites or functions. DER include both energy generation technologies and energy storage systems.

What is distributed energy generation?

When energy generation occurs through distributed energy resources, it's referred to as distributed generation. While DER systems use a variety of energy sources, they're often associated with renewable energy technologies such as rooftop solar panels and small wind turbines.

What is energy storage?

Energy storage is the capturing and holding of energy in reserve for later use. Examples of energy storage technologies used as distributed energy resources include: Battery storage is the most common form of electricity storage.

Can distributed energy resources reduce power outage impact?

This paper explores the integration of Distributed Energy Resources (DER) as a mitigation strategy to reduce the power outage impact in various aspects, namely, minimizing outages and lowering their cost for customers, ensuring DER adaptation cost-effectiveness for the households, and realizing long-term environmental benefits.



Distributed Energy Storage solar

Distributed Energy Storage Solutions for Solar Grid ...

As a result, managing distributed energy storage resources has become critical for furthering distributed solar energy development. With grid connection capacity for distributed solar ...

What are the advantages of distributed solar energy storage ...

Apr 10, 2025 · 1?Solar Distributed Light Storage Solution Overview Solar distributed photovoltaic storage system is the solar photovoltaic power generation and storage equipment in a ...

Solar Integration: Distributed Energy Resources and ...

Distributed Energy ResourcesIslands and MicrogridsBlack StartAdditional InformationSolar DER can be built at different scales--even one small solar panel can provide energy. In fact, about one-third(link is external)of solar energy in the United States is produced by small-scale solar, such as rooftop installations. Household solar installations are called behind-the-meter solar; the meter measures how much electricity a consumer See more on energy.gov#b_results .b_vidAns{border-radius:6px;box-shadow:0 0 0 1px rgba(0,0,0,.05);padding:16px

20px;gap:10px;background:#fff}@charset "UTF-8";#b_results .b_ans.b_vidAns{box-shadow:none!important;padding:var(--smtc-gap-between-content-medium) 0!important;background:var(--bing-smtc-background-ctrl-fade-on-image-stop-0)}#b_results .b_ans.b_vidAns #serpvidans.vsacf .mc_vtvc,#b_results .b_ans.b_vidAns #serpvidans.vsacf .mc_vtvc_th,#b_results .b_ans.b_vidAns #serpvidans.vsacf .cico,#b_results .b_ans.b_vidAns #serpvidans.vsacf .mc_vtvc_htb,#b_results .b_ans.b_vidAns #serpvidans.vsacf .vrhc,#b_results .b_ans.b_vidAns #serpvidans.vsacf .vrhcp,#b_results .b_ans.b_vidAns #serpvidans.vsacf .vrhtc,#b_results .b_ans.b_vidAns #serpvidans.vsacf .vrhtpc{border-radius:var(--mai-smtc-corner-list-card-nested-default)}#b_results .b_ans.b_vidAns #serpvidans.vsacf .mmlist .mc_vtvc,#b_results .b_ans.b_vidAns #serpvidans.vsacf .mmlist .mc_vtvc .mc_vtvc_meta{margin:0}#b_results .b_ans.b_vidAns #serpvidans.vsacf .mmlist .mc_vtvc .mc_vtvc_meta .mc_vtvc_meta_channel,#b_results .b_ans.b_vidAns #serpvidans.vsacf .mmlist .mc_vtvc .mc_vtvc_meta .mc_vtvc_meta_row_channel{color:var(--smtc-foreground-content-neutral-primary)}#serpvidans.vsacf,#serpvidans.vsacf .expctn .expbody,#serpvidans.vsacf .mmlist{display:flex;flex-direction:column;gap:var(--smtc-gap-between-content-medium)}#serpvidans.vsacf .cico{height:auto}#serpvidans.vsacf .mc_vtvc_ban_lo{top:0;right:auto}#serpvidans.vsacf .mc_cwvc .mc_vtvc .mc_vtvc_meta,#serpvidans.vsacf .mmlist .mc_vtvc .mc_vtvc_meta{height:auto;padding:var(--smtc-gap-between-content-xx-small) 0 var(--smtc-gap-between-content-xx-small) var(--smtc-gap-between-content-medium);display:flex;flex-direction:column;justify-content:space-between}#serpvidans.vsacf .mc_cwvc .mc_vtvc .mc_vtvc_meta .mc_vtvc_title,#serpvidans.vsacf .mmlist .mc_vtvc .mc_vtvc_meta .mc_vtvc_title{color:var(--smtc-ctrl-link-foreground-brand-rest);font:var(--bing-smtc-text-global-body2);height:auto;display:-webkit-box;-webkit-line-clamp:2;-webkit-box-orient:vertical}#serpvidans.vsacf .mc_cwvc .mc_vtvc .mc_vtvc_meta .mc_vtvc_meta_block_area,#serpvidans.vsacf .mc_cwvc .mc_vtvc .mc_vtvc_meta .mc_vtvc_meta_block,#serpvidans.vsacf .mmlist .mc_vtvc .mc_vtvc_meta .mc_vtvc_meta_block_area,#serpvidans.vsacf .mmlist .mc_vtvc .mc_vtvc_meta .mc_vtvc_meta_block{display:flex;flex-direction:column;gap:var(--smtc-padding-ctrl-text-side)}#serpvidans.vsacf .mc_cwvc .mc_vtvc .mc_vtvc_meta .mc_vtvc_meta_block_area .mc_vtvc_meta_row,#serpvidans.vsacf .mc_cwvc .mc_vtvc .mc_vtvc_meta .mc_vtvc_meta_block



```
.mc_vtvc_meta_row,#serpvidans.vsacf .mmlist .mc_vtvc .mc_vtvc_meta .mc_vtvc_meta_block_area
.mc_vtvc_meta_row,#serpvidans.vsacf .mmlist .mc_vtvc .mc_vtvc_meta .mc_vtvc_meta_block .mc_
vtvc_meta_row{color:var(--smtc-foreground-content-neutral-primary);height:var(--mai-smtc-
padding-card-default);font:var(--bing-smtc-text-global-caption1)}#serpvidans.vsacf .mc_cwvc
.mc_vtvc .mc_vtvc_meta .mc_vtvc_meta_block_area .mc_vtvc_meta_row
.mc_vtvc_meta_row_channel::before,#serpvidans.vsacf .mc_cwvc .mc_vtvc .mc_vtvc_meta
.mc_vtvc_meta_block .mc_vtvc_meta_row .mc_vtvc_meta_row_channel::before,#serpvidans.vsacf
.mmlist .mc_vtvc .mc_vtvc_meta .mc_vtvc_meta_block_area .mc_vtvc_meta_row
.mc_vtvc_meta_row_channel::before,#serpvidans.vsacf .mmlist .mc_vtvc .mc_vtvc_meta
.mc_vtvc_meta_block .mc_vtvc_meta_row .mc_vtvc_meta_row_channel::before{content:" "
"}#serpvidans.vsacf .mc_cwvc .mc_vtvc .mc_vtvc_meta .mc_vtvc_meta_block_area
.mc_vtvc_meta_pubdate,#serpvidans.vsacf .mc_cwvc .mc_vtvc .mc_vtvc_meta
.mc_vtvc_meta_block .mc_vtvc_meta_pubdate,#serpvidans.vsacf .mmlist .mc_vtvc .mc_vtvc_meta
.mc_vtvc_meta_block_area .mc_vtvc_meta_pubdate,#serpvidans.vsacf .mmlist .mc_vtvc
.mc_vtvc_meta .mc_vtvc_meta_block .mc_vtvc_meta_pubdate{color:var(--bing-smtc-foreground-
content-neutral-tertiary);padding-bottom:0}.vsacf .mc_cwvc .mc_vtvc_con_rc,.vsacf .mmlist
.mc_vtvc_con_rc{display:flex}.vsacf .mc_cwvc .mc_vtvc_con_rc .mc_vtvc_meta_w,.vsacf .mmlist
.mc_vtvc_con_rc .mc_vtvc_meta_w{height:auto}.vsacf .b_title{padding-left:var(--mai-smtc-padding-
card-default)}.vsacf .b_title .mmtitle{font:var(--bing-smtc-text-global-subtitle1-strong);margin-
bottom:0}.vsacf .b_title .mmtitle a::after{content:"";margin:5px 5px 0 0;border-top:2px solid
var(--smtc-foreground-content-neutral-primary);border-right:2px solid var(--smtc-foreground-
content-neutral-primary);background-size:7px 7px;width:7px;height:7px;transform:rotate(45deg);di
splay:inline-block;margin-left:4px}#serpvidans.vsacf .b_title .mmtitle{margin-
bottom:0}#serpvidans.vsacf .b_title .mmtitle a{color:var(--smtc-foreground-content-neutral-
primary)}#serpvidans.vsacf .cardless.mmlist .mc_vtvc_con_rc,#serpvidans.vsacf .cardless.mmlist
.mc_vtvc_th{height:auto}#serpvidans.vsacf .vsb_tr_c.va_tt{margin:0}#serpvidans.vsacf .vtbc
.mv_vtvc_play,#serpvidans.vsacf .vtbc .mv_vtvc_play_ext{position:static}#serpvidans.vsacf .va_tt
.mc_vtvc_ban_lo{display:block}#serpvidans.vsacf .mc_bc{width:auto;border-radius:var(--smtc-ctrl-
badge-sm-corner);padding:var(--smtc-padding-ctrl-text-side) var(--smtc-gap-between-content-xx-
small)}#serpvidans.vsacf .rmts .mc_bc_ems{display:none}#serpvidans.vsacf
a.vsb_tr_t{color:var(--smtc-foreground-content-neutral-primary)}.vsacf .va_tt .vsb_tr_chd
.mc_vtvc_th_dock.rmoverlay{height:36px}.vsacf .va_tt .vsb_tr_chd .mc_vtvc_th_dock{height:92px;
background:linear-gradient(180deg,var(--bing-smtc-background-ctrl-fade-on-image-stop-0)
0%,var(--mai-smtc-background-ctrl-on-image-rest) 100%)}.vsacf .va_tt a.vsb_tr_t{padding:0
20px;font:var(--acf-font-title-2-strong)}.vsacf .va_tt .vsb_tr_chd .mc_vtvc .mc_vtvc_meta,.vsacf
.va_tt .vsb_tr_chd .mc_vtvc .mc_vtvc_title{color:var(--mai-smtc-foreground-ctrl-on-image-
rest)}.vsacf span.vcmt_ctt{font:var(--bing-smtc-text-global-caption2);margin:var(--smtc-gap-
between-content-xx-small) 0 0;height:16px}#serpvidans.vsacf .vsb_tr_chd .mc_vtvc_tot
.mc_vtvc_title strong{font-size:14px;line-height:20px;display:unset}#serpvidans.vsacf .va_tt
.b_slidr .slide:not(:first-child){margin-left:var(--smtc-gap-between-content-
small)}#serpvidans.vsacf .va_tt .vsb_tr_chd .mc_vtvc .mc_vtvc_title{white-space:normal;display:-w
ebkit-box;-webkit-line-clamp:2;-webkit-box-orient:vertical}#serpvidans.vsacf
.b_module_expansion_control .b_btnContainer .b_CompactExpansion{background-color:var(--bing-s
mtc-background-ctrl-neutral-rest);display:flex;justify-content:center;align-
items:center;gap:4px;width:fit-content;height:auto;padding:8px 12px}#serpvidans.vsacf
.b_module_expansion_control .b_btnContainer .b_CompactExpansion .b_CompactExpansionBtnText
{font:var(--bing-smtc-text-global-caption1-strong);color:var(--bing-smtc-foreground-content-brand-
rest)}#serpvidans.vsacf .b_module_expansion_control .b_btnContainer .b_CompactExpansion
.b_arrow{display:flex;margin:0;height:auto}#serpvidans.vsacf .b_module_expansion_control
.b_btnContainer .b_CompactExpansion .b_arrow path#Shape{fill:var(--bing-smtc-foreground-
content-brand-rest)}#serpvidans.vsacf .b_module_expansion_control .b_btnContainer::after{conten
t:"";position:absolute;width:100%;bottom:20px;left:0;height:1px;border-
```



```
radius:1px;background:var(--smtc-stroke-ctrl-on-neutral-rest)}#b_results .b_ans.b_vidAns{box-
shadow:none;padding:12px 20px 0}#b_results .b_ans.b_vidAns
.vasac{padding:unset;margin:0}#b_results .b_ans.b_vidAns .vsa .b_attribution{padding-
bottom:0}#b_results .b_ans.b_vidAns .cardless .salink{margin:0}#b_results .b_ans.b_vidAns
.mmlist .mc_vtvc{margin-top:10px}#b_results .b_ans.b_vidAns .mmlist .mc_vtvc
.mc_vtvc_meta{display:flex;flex-direction:column;justify-content:space-between;margin:0 10px 4px
12px}#b_results .b_ans.b_vidAns .mmlist .mc_vtvc .mc_vtvc_meta
.mc_vtvc_meta_channel{color:#111}#b_results .b_ans.b_vidAns .mmlist .mc_vtvc .mc_vtvc_meta
.mc_vtvc_meta_row_channel,#b_results .b_ans.b_vidAns .mmlist .mc_vtvc .mc_vtvc_meta
.mc_vtvc_meta_block_area{color:#666}#b_results .b_ans.b_vidAns .mmlist .mc_vtvc
.mc_vtvc_meta .mc_vtvc_meta_block_area{bottom:0;height:unset}.b_dark .vsa.cardless .mc_vtvc{b
ackground-color:unset}.mmtitle>a{display:block}.mc_fh{height:100%;border-
radius:6px}.mc_tc_bs{overflow:hidden}.mmlist .mc_vtvc .mc_vtvc_meta { padding: 12px 16px
16px 16px; } .mmlist .mc_vtvc .mc_vtvc_meta_w { height: 112px; margin-top: -0px; } .mmlist
.mc_vtvc .mc_vtvc_title { height: 44px; line-height: 22px; margin-bottom: 0px; margin-top: 0px; }
.mmlist .mc_vtvc .mc_vtvc_meta_block_area { height: 40px; } .mmlist .mc_vtvc .vtmu, .mmlist
.mc_vtvc .vtpl { bottom: 120px; } .mmlist .mc_vtvc_th_dock { height: 112px; } .mmlist .mc_vtvc_th
.cico { height: 131px; } .mc_vtvc{background-color:#fff;box-shadow:0 0 1px rgba(0,0,0,.05);line-
height:0;margin:0;position:relative;border-radius:6px;overflow:hidden}.mc_vtvc.noshadow{box-sha
dow:none}.mc_vtvc_con_rc{border-radius:6px;overflow:hidden;position:relative}.mc_vtvc>a{color:
#71777d;display:block;text-decoration:none;width:100%}.mc_vtvc>a:focus::after{outline:2px solid
#00a89d;width:100%;height:100%;content:"";outline-offset:-2px;position:absolute;top:0;left:0}.mc_
vtvc_th{background-color:#d5d5d5;position:relative}.mc_vtvc_th .cico{border-radius:0}.mc_vtvc_b
an_lo,.mc_vtvc_ban_up{position:absolute;vertical-align:middle}.mc_vtvc_ban_lo{bottom:0}.mc_vtv
c_ban_up{top:0}.mc_vtvc_title{font-weight:normal;margin-
bottom:11px;overflow:hidden;color:#111;height:54px;line-height:18px}.mc_vtvc_title
a{display:inline-block;color:#111}.mc_vtvc_title a:hover{text-decoration:underline}.mc_vtvc_src_ic
o{float:left;margin-right:4px}.mc_vtvc_act{height:16px;margin-top:-40px;padding:12px 8px;z-inde
x:1}.mc_vtvc_actc{right:16px;bottom:16px;position:absolute;display:inline-block;z-
index:1}.mc_vtvc_act_sep{border-top:1px solid #d5d5d5;height:40px;margin:0 8px}.mc_vtvc_fh
.mc_vtvc_act_sep,.mc_vtvc_fh .mc_vtvc_act{visibility:hidden}#serpvidans .b_topTitle{margin-botto
m:8px}.mc_vtvc_htc{width:100%;height:100%;position:absolute;top:0;bottom:0;left:0;right:0}.mc_
vtvc_htb{width:100%;height:100%;background:rgba(0,0,0,.7);position:absolute;top:0;bottom:0;left:
0;right:0}.mc_vtvc_ht{width:100%;padding:0 16px;line-height:16px;color:#fff;text-decoration:unde
rline;word-break:break-word;box-sizing:border-box;vertical-align:middle;text-align:center}.mc-
vtvc_th_live_b{background-color:#c80000;color:#fff;display:inline-block;padding:2px
8px;font:11px/14px Arial;border-radius:2px;text-
transform:uppercase;height:15px;width:26px;position:absolute;left:8px;top:110px}.isvctrl .isv
.mc_vtvc_ban_up{left:0;right:initial}.mc_vtvc_ban_lo,.mc_vtvc_ban_up{right:0}.vt_text.b_lRight
.b_lLeft{margin:0 0 0 1px;height:14px;line-height:14px;padding:2px 8px;background:rgba(0,0,0,.75
);border-radius:2px;font-weight:bold}.mc_vthtb{width:100%;height:100%;background:rgba(0,0,0,.7
);position:absolute;top:0;bottom:0;left:0;right:0;display:table}.mc_vtht{width:100%;padding:0 16px
;line-height:16px;color:#fff;text-decoration:underline;word-break:break-word;box-sizing:border-
box;vertical-align:middle;text-align:center;display:table-cell}.vt_text.b_lRight .b_lLeft{margin:0 0 0
1px;height:14px;line-height:14px;padding:2px 8px;background:rgba(0,0,0,.75);border-radius:2px;fo
nt-weight:bold}.emptyStyleForDebuggingPurpose{top:0}.emptyStyleForDebuggingPurpose{top:0}.
mc_vtvc_center_play{width:32px;height:32px;background-size:contain;position:absolute;margin:au
to;bottom:0;top:0;left:0;right:0;box-shadow:none;border-radius:0}.mc_vtvc_center_play.rmvbg{wid
th:32px;height:32px;background-image:none}.mc_vtvc_htb,.mc_vtvc_ht{display:none}.vt_onhv
.mc_vtvc_htb{display:table}.vt_onhv .mc_vtvc_ht{display:table-
cell}.mc_vtvc_center_play{display:inline-block}.vt_onhv
.mc_vtvc_center_play{display:none}.mc_vtvc .vtmu,.mc_vtvc .vtpl{bottom:163px}.vsarf .mc_vtvc
```



```
.vtmu,.vsarf .mc_vtvc .vtpl{bottom:122px}.svarh #mmcar .mc_vtvc .vtmu,.svarh #mmcar .mc_vtvc
.vtpl{bottom:137px}.svarht #mmcar .mc_vtvc .vtmu,.svarht #mmcar .mc_vtvc .vtpl{top:8px;left:8
px}.mc_vtvc_center_play{background-image:url(data:image/svg+xml,%3Csvg%20width%3D%2232
%22%20height%3D%2232%22%20viewBox%3D%220%200%2032%2032%22%20fill%3D%22none
%22%20xmlns%3D%22http%3A%2F%2F%2F2000%2Fsvg%22%3E%0D%0A%20%20%20%20%3Cr
ect%20width%3D%2232%22%20height%3D%2232%22%20rx%3D%2216%22%20fill%3D%22black
%22%20fill-opacity%3D%220.6%22%2F%3E%0D%0A%20%20%20%20%3Cpath%20d%3D%22M14.
2354%2010.1923C13.2355%209.62986%2012%2010.3524%2012%2011.4997V20.5C12%2021.647
2%2013.2355%2022.3698%2014.2354%2021.8073L22.2356%2017.3073C23.2551%2016.7339%2
023.2551%2015.2661%2022.2357%2014.6926L14.2354%2010.1923Z%22%20fill%3D%22white%2
2%20fill-opacity%3D%220.9%22%2F%3E%0D%0A%3C%2Fsvg%3E)}.mmlist .mc_vtvc{margin:10px
1px 0}.mmlist .mc_vtvc_con_rc{display:flex}.cardless .mmlist
.mc_vtvc_con_rc{height:112px}.mmlist .mc_vtvc .mc_vtvc_meta{display:flex;flex-
direction:column;justify-content:space-between;margin:0 10px 4px 12px;padding:0}.mmlist .mc_vt
vc_title{font-weight:400;font-size:16px;height:44px;line-height:22px;margin-bottom:0;margin-
top:0;color:unset}.mmlist .mc_vtvc_meta_row{font-size:13px}.mmlist .mc_vtvc
.mc_vtvc_meta_block_area{height:unset}.mmlist .mc_vtvc .vtmu,.mmlist .mc_vtvc
.vtpl{bottom:8px}.cardless .mmlist .mc_vtvc{box-shadow:none}.cardless.mmlist
.mc_vtvc_center_play{width:32px;height:32px}.cardless.mmlist .mc_vtvc_title{font-
size:16px;color:unset}.cardless.mmlist .mc_vtvc_meta_row{line-height:20px}.cardless.mmlist
.mc_vtvc_meta_pubdate{padding-bottom:2px;color:#666}.cardless.mmlist
.mc_vtvc_th,.cardless.mmlist .mc_vtvc_th .cico,.cardless.mmlist .mc_vtvc_th div.rms_img{border-
radius:6px}.cardless.mmlist .mc_vtvc_th{height:111px}.cardless.mmlist .mc_vtvc_htc{border-
radius:6px;overflow:hidden}#serpvidans.vasac.cardless{box-shadow:none}.cardless.mmlist
.mc_bc{padding:2px 8px;line-height:14px;border-radius:2px;font-weight:normal}.mc_vtvc: hover .m
c_vtvc_title{text-decoration:underline}.mc_vtvc_meta{box-sizing:border-box;display:inline-block;lin
e-height:18px;position:relative;width:100%}.mc_vtvc_meta_block{bottom:0;position:absolute;width
:100%}.mc_vtvc_meta_row{line-height:16px;font-size:11px;height:17px;overflow:hidden;text-
overflow:ellipsis;white-space:nowrap}.mc_vtvc_meta_row a{display:inline-
block}.mc_vtvc_meta_row a:hover{text-decoration:underline}.mc_vtvc_meta_block_area{position:r
elative}.mc_vtvc_meta_block,.mc_vtvc_meta_block a{color:#444}.b_dark
.mc_vtvc_meta_block{color:#edebe9}.mc_vtvc_meta_row>:nth-of-type(n+2)::before{content:"
"}.mc_vtvc_meta_row .mc_vtvc_meta_row_channel::before{content:" > "}.mc_vtvc_kmt_title{line-h
eight:18px;padding-bottom:4px;font-weight:bold;color:#00809d;text-transform:uppercase;font-
size:11px}.mc_vtvc_kmt,.mc_vtvc_con_rc.onhov .wkmt .mc_vtvc_meta_row,.mc_vtvc_con_rc.onhov
.wkmt .tbc_tt{display:none}.mc_vtvc_con_rc.onhov .wkmt .mc_vtvc_title{max-height:18px;margin-
bottom:18px;overflow:hidden}.mc_vtvc_con_rc.onhov.mmsts
.mc_vtvc_title{visibility:hidden}.mc_vtvc_con_rc.onhov
.mc_vtvc_kmt{display:block}.mc_vtvc_kmt_content .b_factrow{line-height:17px;font-size:11px;max-
height:34px;overflow:hidden;text-overflow:ellipsis;padding:0 16px 0 0;color:#444}.mc_vtvc_meta
.mc_vtvc_kmt_title{line-height:18px}.mc_vtvc_title:hover{text-decoration:none}.mc_vtvc_meta_pub
date{color:#444;padding-bottom:3px}.mc_vtvc_meta_channel{color:#444}.mc_vtvc_meta_w,.mc_
vplvc_meta_w{position:relative}.mc_vtvc_meta_bg_w,.mc_vplvc_meta_bg_w{height:100%;width:10
0%;overflow:hidden;position:absolute;top:0}.mc_vtvc_meta_bg_w .cico,.mc_vplvc_meta_bg_w
.cico{border-radius:0;overflow:visible}.dg_u .mm_vidch_th_c{overflow:visible}.dg_u
.mm_vidch_th_bg_img{margin-
top:-20px}.emptyStyleForDebuggingPurpose{top:0}.mc_vtvc_meta_w
.mc_vtvc_meta{background:rgba(255,255,255,.75)}.mc_vtvc_meta_bg_w_img,.mc_vtvc_meta_bg_w
.mc_vtvc_cb_w{filter:blur(25px);transform:scale(1.2)}body{--video-metadata-channel-
color:#3c3c3c}body.b_dark{--video-metadata-channel-color:unset}.vsarf
.mc_vtvc_meta_pubdate{color:unset}.vsarf .mc_vtvc_meta_channel{color:var(--video-metadata-
channel-color)}.vsarf .mc_vtvc .mc_vtvc_meta_w .mc_vtvc_title,.vsarf .mc_vtvc .mc_vtvc_meta_w
```




```
.b_videocard .video_summary,#serpvidansrr #vidans2 .b_videocard .video_source{line-  
height:15px}#serpvidansrr #vidans2 .b_videocard .videoPlayer .vtbc{right:0}.vrhc line.nhvpv  
.pffvi,.vrhc line.nhvpv[data-tps="S"] .pffvt,.vrhc line.nhvpv[data-tps="M"] .pffvt,.vrhc  
line.nhvpv[data-tps="L"] .pffvt{display:inline-flex}.vrhc line.nhvpv .vrhctc.pffv  
.vrhol{display:none}.vrhc line.nhvpv .vrhctc.pffv .player_ol{background:var(--mai-smtc-background-  
ctrl-on-image-hover);transition:background-color .5s;display:flex;align-items:center;justify-content:c  
enter;padding:var(--smtc-gap-between-content-x-small);gap:var(--smtc-gap-between-content-x-  
small);box-sizing:border-box}.mc_vtvc_th img{transition:all .3s ease-out}.nhvpv+.mc_vtvc_th img{  
transform:scale(1.1)}.smtplayerhtml5{height:100%;width:100%;overflow:hidden}.smtplayerhtml5  
video{min-height:100%;min-width:100%}.smtplayerhtml5 .videoplaying{background-color:#000}.s  
mtplayerhtml5.hide{display:none}.pffvt{display:none;color:var(--mai-smtc-foreground-ctrl-on-imag  
e-rest);font:var(--bing-smtc-text-global-  
subtitle2-strong)}.pffvi{mask:url(/rp/ui07wU6K7FR_inzG7DRbP1i8fGo.svg) center no-repeat;mask-si  
ze:12px;background:var(--bing-smtc-background-card-on-image-  
default);width:20px;height:20px;flex-shrink:0;align-self:flex-start}[data-tps="L"]  
.pffvt{font:var(--bing-smtc-text-global-subtitle2-strong)}[data-tps="L"]  
.pffvi{width:22px;height:22px;mask-size:16px}[data-tps="S"] .pffvt{font-size:0}[data-tps="S"]  
.pffvi{width:24px;height:24px;mask-size:24px;align-self:center}.hvpv.h5s .pffvt{display:inline-  
flex}.hvpv.h5s .vrhctc.pffv .vrhol{display:none}.hvpv.h5s .vrhctc.pffv  
.player_ol{background:var(--mai-smtc-background-ctrl-on-image-hover);transition:background-color  
.5s;display:flex;align-items:center;justify-content:center;padding:var(--smtc-gap-between-content-x  
-small);gap:var(--smtc-gap-between-content-x-small);box-sizing:border-box}.pffvt{text-  
decoration:underline}.vrhcp .vrhol{position:absolute;width:100%;height:35px;max-  
height:35px;bottom:0;left:0;padding:0;background:none;display:block;z-index:9}.vrhcp  
.vrhol.hide,.vrhcp .vrhol .hide{display:none}.vrhot{white-space:nowrap;text-overflow:ellipsis;overfl  
ow:hidden;display:inline-block;position:absolute;max-width:240px;height:18px;line-  
height:14px;margin-left:8px;top:10px;left:0;right:0;border-radius:2px;padding-right:8px}.vrhot  
div{display:inline-block}.vrhot nt{color:#fff;font-size:11px;font-weight:bold;background-  
color:rgba(0,0,0,.75);padding:2px 8px;margin-left:0;top:0;box-sizing:border-  
box;position:relative}.vrhc .ricons{position:absolute;right:8px;top:10px;left:auto;bottom:auto;heigh  
t:18px;display:inline-block;cursor:pointer}.vrhol.icons_1 .vrhot{margin-right:27px}.vrhol.icons_2  
.vrhot{margin-right:49px}.vrhol.icons_3 .vrhot{margin-right:79px}.vrhol .vrhot nt,.vsb_tr_chd  
.vrhol.icons_1 .vrhot{margin-  
right:0}.vpb{position:absolute;display:block;bottom:0;left:0;height:4px}.vpb  
div{position:absolute}.vpb nt{width:0;background:#fff}.vpb  
nt.test{display:none}.vpb.back{background-color:#999}.vrhcp .vrhol.npb{height:36px;max-  
height:36px}.vrhol .vadda{width:22px;height:18px;padding:0;margin-right:0;margin-left:2px;botto  
m:0;position:relative;display:inline-block;z-index:1;background:rgba(0,0,0,.75);border-  
radius:2px;overflow:hidden}.vrhol .vadda.hide{display:none}.vrhol .vadda .mc_vfaa{margin:3px  
5px}.ricons .vol{float:left}.ricons .adultFlag{float:right}.vol{width:22px;height:18px;bottom:0;mar  
gin-left:1px;margin-right:1px;position:relative;display:inline-block}.vol.hide,.vol  
.hide{display:none}.vol .bg{background:rgba(0,0,0,.75);border-radius:2px}.vol.bg,.vol  
nt{position:absolute;bottom:0}.vol .vol.bg.volnb{border-radius:0 0 2px 2px}.vol  
.volsliderHandle.bg{border-radius:2px 2px 0 0}.vol nt .volsliderHandle{height:70px;display:none;wi  
dth:22px;float:left;bottom:18px;position:absolute;display:block}.vol nt  
.volsliderHandle.hide{display:none}.volsliderHandle .vsb{height:54px;width:4px;background-  
color:#999;margin:9px auto 8px;position:relative;display:block;border-radius:2px}.volsliderHandle  
.vsh{height:6px;width:14px;padding:9px 7px 9px 7px;margin:0  
-12px;display:block;position:absolute;top:30px}.volsliderHandle  
.vsh.hide{display:none}.volsliderHandle .vshi{height:4px;width:14px;background-color:#fff;border-  
radius:2px}.volMutelcon{width:16px;height:14px;margin:2px 4px;float:left}.volMuteHandle{width:  
22px;height:18px}.vo{background:url(/rp/ffZxBXEIP9WYOO0jhTaElyLhEVU.svg) no-
```



```
repeat}.vm{background:url(/rp/fsX-ZVd03wB2TL0vmQjxSp4U9vs.svg) no-repeat}.vl{background:url(/rp/YXYMPC1Rry_XJGc7Yg8lR4B2eEs.svg) no-repeat}.vf{background:url(/rp/NosrlR4amKTs1zYxWy3laZN3HRk.svg) no-repeat}@media(forced-colors:active){.vol{forced-color-adjust:none}}.vrhc line .vt_vp,.vrhc.popout .vt_vp,.vrhc.mousefollow .vt_vp{position:absolute;bottom:0;border:hidden;padding:0;top:0;left:0;z-index:3}.vrhrc .hide{display:none}.vrh_clic .vt_vp,.vrh_clic .vrhrc .vrhi,.vrh_clic .player_ol{cursor:pointer}.vrh_clic .cico{border-radius:0}.vrhrc{border:hidden;top:0;left:0;padding:0}.vrhc.mousefollow .vrhrc,.vrhc.popout .vrhrc{background-color:#999}.vrhrc.load .player_ol{background:url(/rp/_o2maogFDeUOsovPJL-ofEuxJ4.gif) center center no-repeat}.vrhc line .vrhrc .vrhi,.vrhc.popout .vrhrc .vrhi,.vrhc.mousefollow .vrhrc .vrhi{position:absolute!important;border:hidden;z-index:2;padding:0;left:0;top:0}.player_ol{position:absolute;width:100%;height:100%;bottom:0;border:hidden;z-index:7}.vrhc.popout,.vrhc line,.vrhc.mousefollow{border-radius:6px;overflow:hidden;display:table-row-group;background:none}.vrhc.popout,.vrhc.mousefollow{z-index:4;box-shadow:0 4px 4px rgba(0,0,0,.1),0 2px 80px rgba(0,0,0,.2)}.vrhc line{z-index:1;margin:0}.vrhc.popout,.vrhc line{position:absolute;top:0}.vrhc.popout{border:1px solid #fff}.vrhc.mousefollow{position:fixed}.vrhrcp{position:relative;top:0;left:0;display:table-row}.vrhrcp .vrhrc{position:relative;overflow:hidden}.vrhc.hide{display:none}@keyframes vh_fadein{from{opacity:0}to{opacity:1}}.vrhc.not(.hide){animation:vh_fadein 250ms}.vrhc line img{color:transparent}.vrhc line.fullsize{height:100%}.vrhc,.vrhc:active,.vrhc:visited{color:#000;text-decoration:none}.vrhc.vrh_clic{cursor:pointer}a.hover-anchor{display:block;height:100%;width:100%;text-decoration:none}.vrhstat{height:0;overflow:hidden}Videos of Distributed Energy Storage SolarWatch video on ibm What Are Distributed Energy Resources (DER)? , IBMibm Jun 4, 2024Watch video on energy.govResilient Distribution Systems Powered by Solar Energyenergy.govFeb 19, 2021Watch video on ibm What Is Distributed Generation? , IBMibm Jun 9, 2024Watch full video.iacfm .iacf_head{display:flex;align-items:center;gap:var(--smtc-gap-between-content-small);text-decoration-color:var(--smtc-foreground-content-neutral-primary);box-sizing:border-box;margin-bottom:var(--smtc-gap-between-content-x-small)}.iacfm .iacf_head span{flex:1 1 0;white-space:nowrap;text-overflow:ellipsis;overflow:hidden;color:var(--smtc-foreground-content-neutral-primary);font:var(--acf-font-title-1-strong)}.iacfm .iacf_head div{display:flex;height:22px;width:22px;justify-content:center;align-items:center;transition:background 300ms ease-out;margin-right:-3px;border-radius:var(--mai-smtc-corner-list-card-nested-default);overflow:hidden}.iacfm .iacf_head .iacf_chv{color:var(--smtc-foreground-content-neutral-primary)}[dir='rtl'] .iacfm .iacf_head svg{transform:scaleX(-1)}#b_content .iacfic.mmkiaacf .iacfmit .imgInfo{color:var(--smtc-ctrl-link-foreground-brand-rest)}#b_content .iacfic.mmkiaacf .iacfmit a{text-decoration-color:var(--smtc-ctrl-link-foreground-brand-hover)}#b_content .iacfic.mmkiaacf .iacfmit .imgInfo{font:var(--bing-smtc-text-global-body3)}#b_content .iacfic.mmkiaacf .iacf_crsl[dat a-wptds-carousel]>div[data-wptds-carousel-scroll-container]{padding-bottom:52px}#b_content .iacfic.mmkiaacf .iacfmit{box-sizing:initial;padding-bottom:52px}#b_content .iacfic.mmkiaacf .iacfmit .imgInfo{text-overflow:ellipsis;display:-webkit-box;-webkit-line-clamp:2;-webkit-box-orient:vertical;align-self:stretch;padding:0 var(--smtc-gap-between-content-xx-small);overflow:hidden}#b_content .iacfic.mmkiaacf .iacfimgc{padding-bottom:var(--smtc-gap-between-content-x-small)}#b_content .acflmgAns .salink,#b_content .acflmgAns .iasalink{text-align:center;display:block;padding-bottom:var(--smtc-gap-between-content-medium)}#b_content .acflmgAns .salink:hover .iasabt,#b_content .acflmgAns .iasalink:hover .iasabt{background:var(--bing-smtc-background-ctrl-outline-hover)}#b_content .acflmgAns .salink:active .iasabt,#b_content .acflmgAns .iasalink:active .iasabt{background:var(--bing-smtc-background-ctrl-outline-pressed)}#b_content .acflmgAns .iasabt,#b_content .acflmgAns .iaExp_chvron{height:initial;border-radius:var(--smtc-corner-circular);background:var(--bing-smtc-background-ctrl-neutral-rest);display:inline-block;position:relative;top:0;box-shadow:initial}#b_content .acflmgAns .iasatxt{font:var(--bing-smtc-text-global-caption1-strong);color:var(--bing-smtc-foreground-content-brand-rest);padding:var(--smtc-gap-between-content-x-small) var(--smtc-gap-be
```



```
tween-content-small);display:flex;gap:var(--smtc-gap-between-content-x-small);justify-
content:center;align-items:center}#b_content .acflmgAns .salink::before,#b_content .acflmgAns
.iasalink::before{border-bottom:1px solid var(--smtc-stroke-ctrl-on-neutral-
rest);width:100%;display:block;content:"";top:18px;position:relative}#b_content .acflmgAns
.svg{vertical-align:top}#b_content .acflmgAns .svgpath{fill:var(--bing-smtc-foreground-content-
brand-rest)}#b_content .acflmgAns .iachevron,#b_content .acflmgAns
.svgicon{width:12px;height:12px;margin-left:0;position:relative;top:0}html[dir=rtl] #b_content
.acflmgAns .iachevron,html[dir=rtl] #b_content .acflmgAns
.svgicon{transform:scaleX(-1)}#b_content .acflmgAns .rel_ent_w a.rel_ent{border:1px solid
var(--acf-stroke-neutral-decorative)}#b_content .acflmgAns .iaheader .iacf_head{text-decoration-
color:var(--smtc-foreground-ctrl-neutral-primary-hover)}#b_content .acflmgAns .iaheader
.iacf_head span,#b_content .acflmgAns .iaheader .iacf_head svg{color:var(--smtc-foreground-
content-neutral-primary);forced-color-adjust:auto}#b_content .iacfic.mmkiaacf .iacf_plan
.cico{border-radius:var(--smtc-corner-card-rest)}#b_content .iacfic.mmkiaacf .iacf_plan .cico
img{border-radius:var(--smtc-corner-card-rest)}#b_content
.iacfic.mmkiaacf{overflow:visible;padding:0}#b_content .iacfic.mmkiaacf .iacf_crsI[data-wptds-
carousel]{margin:0;padding-bottom:var(--smtc-gap-between-content-medium)}#b_content
.iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel] [data-wptds-carousel-controls]{--wptds-carousel-
control-opacity:1}#b_content .iacfic.mmkiaacf .iacf_crsI[data-wptds-
carousel]>div{padding:0}#b_content .iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel] [data-
direction="end"]{margin-right:-22px}#b_content .iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel]
[data-direction="end"] svg{transform:scaleX(-1)}#b_content .iacfic.mmkiaacf .iacf_crsI[data-wptds-
carousel] [data-direction="start"]{margin-left:-22px}#b_content .iacfic.mmkiaacf .iacf_crsI[data-
wptds-carousel] [data-direction="start"] svg{transform:scaleX(1)}#b_content .iacfic.mmkiaacf
.iacf_crsI[data-wptds-carousel] button{background:var(--smtc-background-card-on-primary-default-
rest);box-shadow:var(--acf-elevation-3);width:36px;border-radius:var(--smtc-corner-ctrl-lg-
rest)}#b_content .iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel]
button:hover{background:var(--smtc-background-card-on-primary-default-hover)}#b_content
.iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel] button:active{background:var(--smtc-background-
card-on-primary-default-pressed)}#b_content .iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel]
button svg{transition:initial}#b_content .iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel] button svg
path{fill:var(--smtc-foreground-content-neutral-secondary);forced-color-adjust:auto}#b_content
.iacfic.mmkiaacf .iacfmit{position:absolute}#b_content .iacfic.mmkiaacf
.iacfimgc{margin:auto}#b_content .b_ans.b_imgansacf{padding:0!important}#b_content
.b_ans.b_top.b_imgansacf{background-color:initial!important}#b_content .acflmgAns .iaheader
.iacf_head{gap:0;padding:var(--smtc-gap-between-content-medium) 0;display:flex;align-
items:center;box-sizing:border-box}#b_content .acflmgAns .iaheader .iacf_head:hover{text-
decoration:none}#b_content .acflmgAns .iaheader .iacf_head:hover span{text-
decoration:underline}#b_content .acflmgAns .iaheader .iacf_head:hover
.iacf_chv{background:initial}#b_content .acflmgAns .iaheader .iacf_head div{display:flex;align-
items:center;transition:background 300ms ease-out;margin-right:-3px;border-radius:var(--smtc-corn-
er-ctrl-rest);overflow:hidden;color:var(--bing-smtc-foreground-content-neutral-secondary-
alt)}#b_content .acflmgAns .iaheader .iacf_head span{width:initial;flex:none;font:var(--bing-smtc-te-
xt-global-subtitle1-strong);padding-inline-start:var(--mai-smtc-padding-card-default);max-
width:90%;text-overflow:ellipsis;white-space:nowrap;overflow:hidden}#b_content .acflmgAns
.iaheader .iacf_head .iacf_chv{width:22px;justify-content:center;height:22px}#b_content
.acflmgAns .rel_ent_w{margin-top:0}#b_content .acflmgAns .rel_ent_w
.b_slideexp{margin:0}#b_content .acflmgAns .rel_ent_w .btn.rounded{top:initial;margin-
top:1px}#b_content .acflmgAns .rel_ent_w .btn.next{right:-14px}#b_content .acflmgAns .rel_ent_w
.cr>div{width:36px;height:38px;border-radius:var(--smtc-corner-ctrl-lg-rest);background:var(--bing-
smtc-background-container);box-shadow:var(--acf-elevation-3);border:initial}#b_content
.acflmgAns .rel_ent_w .cr>div:after{margin-inline-start:2px;top:0}#b_content .acflmgAns
```



```
.rel_ent_w .b_viewport{padding-top:0;margin-left:0;padding-left:0} #b_content .acflmgAns
.rel_ent_w .b_viewport .slide{height:38px;margin-left:0;margin-inline-end:var(--smtc-gap-between-
content-x-small)} #b_content .acflmgAns .rel_ent_w a.rel_ent{border-radius:var(--smtc-corner-circul
ar);background:var(--smtc-background-card-on-primary-default-rest);padding-
left:0;height:38px} #b_content .acflmgAns .rel_ent_w a.rel_ent:hover{background:var(--smtc-
background-card-on-primary-default-hover)} #b_content .acflmgAns .rel_ent_w
a.rel_ent:active{background:var(--smtc-background-card-on-primary-default-pressed)} #b_content
.acflmgAns .rel_ent_w .cico{margin:var(--smtc-gap-between-content-xx-small) var(--smtc-gap-
between-content-x-small) var(--smtc-gap-between-content-xx-small) var(--smtc-gap-between-
content-xx-small)} #b_content .acflmgAns .rel_ent_w .rel_ent_tw{font:var(--bing-smtc-text-global-
caption1-strong)} #b_content .acflmgAns .rel_ent_w .rel_ent_c{padding-left:0} #b_content
.acflmgAns .rel_ent_w .b_slidebar{padding-inline-start:var(--mai-smtc-padding-card-
default)} #b_content .acflmgAns .rel_ent_w .rel_ent_c .rel_ent:first-child{margin-inline-
start:var(--mai-smtc-padding-card-default);align-items:center} #b_content .acflmgAns .rel_ent_w
.rel_ent_t{max-width:250px}html[dir=rtl] #b_content .acflmgAns .iaheader .iacf_head
svg{transform:scaleX(-1)}html[dir=rtl] #b_content .acflmgAns .iacf_crsl[data-wptds-carousel] [data-
direction="end"]{transform:scaleX(-1)}html[dir=rtl] #b_content .acflmgAns .iacf_crsl[data-wptds-
carousel] [data-direction="start"]{transform:scaleX(-1)}.iacfm .iacfmit a:focus .isp_imgcont
img,.iacfm .iacfmit a:focus .iacfimgc img,.iacfm .iacfmit a:focus .iacf_smol{outline:3px dotted
#1aebff;outline-offset:-5px}.iacfm .iacfmit .cico{position:relative}.iacfm .iacfmit .cico::after{conten
t:"";position:absolute;left:0;top:0;width:100%;height:100%;background:rgba(0,0,0,.03)}.gs_card
.iacfmit img,.b_wpt_container .iacfmit img,.b_acf_card .iacfmit img{transition:transform .3s ease-
out}.gs_card .iacfmit:hover .iacfimgc img,.b_wpt_container .iacfmit:hover .iacfimgc img,.b_acf_card
.iacfmit:hover .iacfimgc img{transform:scale(1.1)}.iacfic{position:relative;height:100%;width:100%
;background:#fff;overflow:hidden;border-radius:inherit}.iacf_plan{position:relative}.iacfmit
.mimg{width:100%;height:100%;position:relative}.iacfic .iacfmit{position:absolute}.iacfic .iacfmit .
cico{border-radius:0}.iacfca{padding:var(--mai-smtc-padding-card-default);box-sizing:border-
box;overflow:hidden;border-radius:var(--smtc-corner-card-rest)}.iacfca .iacf_crsl
.iacfmit{overflow:hidden;position:relative}.iacfca .iacf_crsl .iacfmit .cico{overflow:hidden;border-
radius:var(--mai-smtc-corner-list-card-nested-default)}.iacfca .iacf_crsl .iacfmit .cico img{border-
radius:inherit;transition:transform 300ms ease-out}.iacfca .iacf_crsl .iacfmit:hover .cico
img{transform:scale(1.1)}.iacfca .iacfmit a:focus,.iacfca .iacfmit a:focus img{outline:0}.iacfca
.iacfmit a:focus .cico::after{border-radius:inherit;box-shadow:inset 0 0 0 3px var(--bing-smtc-
background-card-on-primary-alt-rest);outline:2px solid var(--smtc-foreground-content-neutral-
secondary);outline-offset:-2px}.iacfca [data-wptds-carousel][data-default][data-
variant="Normal"]{margin:0 calc(-1*var(--mai-smtc-padding-card-default));height:auto}.iacfca
[data-wptds-carousel][data-default][data-variant="Normal"] [data-wptds-carousel-scroll-
container]{padding:0 var(--mai-smtc-padding-card-default)}.iacfca [data-wptds-carousel][data-
default][data-variant="Normal"] [data-wptds-carousel-scroll-container] ol{width:fit-content;align-
items:center}.iacfca [data-wptds-carousel][data-default] [data-wptds-carousel-control][data-
direction="end"]{margin-right:24px}.iacfca [data-wptds-carousel][data-default] [data-wptds-
carousel-control][data-direction="start"]{margin-left:24px}.iacfca
.iacf_pag{position:absolute;bottom:8px;left:50%;transform:translate(-50%,0)}.cards.large
.iacfca{height:200px}[dir='rtl'] .iacfca .iacf_pag{transform:translate(50%,0)}.iacfm.iacfca
.iacf_crsl[data-wptds-carousel] [data-wptds-carousel-control]{background:var(--bing-smtc-
background-ctrl-neutral-rest);border:0;height:56px;width:16px;transition:width .3s;background
.3s;color:var(--smtc-foreground-ctrl-neutral-primary-hover)}.iacfm.iacfca .iacf_crsl[data-wptds-
carousel] [data-wptds-carousel-control] svg{transition:transform .3s}.iacfm.iacfca .iacf_crsl[data-
wptds-carousel] [data-wptds-carousel-control]:hover{width:24px;background:var(--smtc-
background-ctrl-neutral-hover)}.iacfm.iacfca .iacf_crsl[data-wptds-carousel] [data-wptds-carousel-
control] path{fill:currentColor}.iacfm.iacfca .iacf_crsl[data-wptds-carousel] ol [data-
direction="start"]{border-radius:0 8px 8px 0;margin-left:16px}.iacfm.iacfca .iacf_crsl[data-wptds-
```



```
carousel] ol [data-direction="start"] svg{transform:scale(.7)}.iacfm.iacfca .iacf_crsl[data-wptds-
carousel] ol [data-direction="start"]:hover svg{transform:scale(1)}.iacfm.iacfca .iacf_crsl[data-
wptds-carousel] ol [data-direction="end"]{border-radius:8px 0 0 8px;margin-
right:16px}.iacfm.iacfca .iacf_crsl[data-wptds-carousel] ol [data-direction="end"]
svg{transform:scale(-.7)}.iacfm.iacfca .iacf_crsl[data-wptds-carousel] ol [data-
direction="end"]:hover svg{transform:scale(-1)}.iacfm.iacfca.iacf_fb .iacf_crsl[data-wptds-carousel]
[data-wptds-carousel-control],.iacfm.iacfca.iacf_ss .iacf_crsl[data-wptds-carousel] [data-wptds-carou
sel-control]{background:var(--mai-smtc-background-ctrl-on-image-rest);color:var(--mai-smtc-
foreground-ctrl-on-image-rest)}.iacfm.iacfca.iacf_fb .iacf_crsl[data-wptds-carousel] [data-wptds-
carousel-control] path,.iacfm.iacfca.iacf_ss .iacf_crsl[data-wptds-carousel] [data-wptds-carousel-
control] path{fill:currentColor}.iacfca .iacf_colg_crsl [data-wptds-carousel-list]{width:fit-
content}.iacfca .iacf_colg_crsl .iacfmit{position:absolute}.iacfca .iacf_colg_crsl .cico{border-radius:
0}.iacfca:not(.iacfh):has(>.iacf_colg_crsl){height:100%;width:100%;padding:0;overflow:hidden;bord
er-radius:inherit}.iacfca:not(.iacfh):has(>.iacf_colg_crsl) .iacfmit{border-
radius:0}.iacfca:not(.iacfh):has(>.iacf_colg_crsl) [data-wptds-carousel][data-default] [data-wptds-
carousel-controls]{inline-size:calc(100% + var(--wptds-carousel-control-size) - var(--mai-smtc-
padding-card-default)*2);transform:translateX(calc(0rem + var(--mai-smtc-padding-card-default) -
(var(--wptds-carousel-control-size)/2))) translateY(-50%)}[data-wptds-carousel][data-default],[data-
wptds-carousel][data-default]::before,[data-wptds-carousel][data-default]::after,[data-wptds-
carousel][data-default] *,[data-wptds-carousel][data-default] *::before,[data-wptds-carousel][data-
default] *::after{box-sizing:border-box;margin:0;padding:0}[data-wptds-carousel][data-
default][hidden],[data-wptds-carousel][data-default] [hidden]{display:none}[data-wptds-
carousel][data-default][data-visually-hidden],[data-wptds-carousel][data-default] [data-visually-
hidden]{block-size:.0625rem;border:0;clip:rect(0 0 0 0);inline-size:.0625rem;margin:-.0625rem;ove
rflow:hidden;padding:0;position:absolute}[data-wptds-carousel][data-default]{--wptds-carousel-con
trol-bg-color:#fff;--wptds-carousel-control-border-color:#ddd;--wptds-carousel-control-box-
shadow:0rem .125rem .1875rem rgba(0,0,0,.1);--wptds-carousel-control-fg-color:#767676;--wptds-c
arousel-control-size:2rem;display:block;position:relative;block-size:100%}[data-wptds-
carousel][data-default] [data-wptds-carousel-scroll-container]{overflow-x:auto;overflow-y:clip;scroll-
behavior:smooth;block-size:100%;-ms-overflow-style:none;scrollbar-width:none}[data-wptds-
carousel][data-default] [data-wptds-carousel-scroll-container]::-webkit-scrollbar{display:none}[data-
wptds-carousel][data-default] [data-wptds-carousel-scroll-container]:focus-visible{outline-color:High
light;outline-color:-webkit-focus-ring-color;outline-offset:.0625rem;outline-style:auto;outline-
width:.0625rem}[data-wptds-carousel][data-default] [data-wptds-carousel-
list]{display:flex;gap:.5rem;list-style:none;block-size:100%}[data-wptds-carousel][data-default]
[data-wptds-carousel-list]> *{flex-grow:0;flex-shrink:0}[data-wptds-carousel][data-default] [data-wp
tds-carousel-list]>:not([data-wptds-carousel-item]){display:none}[data-wptds-carousel][data-
default] [data-wptds-carousel-item]{block-size:100%}[data-wptds-carousel][data-default] [data-
wptds-carousel-item]> *{block-size:100%}[data-wptds-carousel][data-default] [data-wptds-carousel-
item]>img{display:block;inline-size:auto}[data-wptds-carousel][data-default] [data-wptds-carousel-
controls]{list-style:none;position:absolute;inline-size:calc(100% + var(--wptds-carousel-control-
size));inset-block-start:50%;transform:translateX(calc(0rem - (var(--wptds-carousel-control-size)/2)))
translateY(-50%);display:flex;align-items:center;justify-content:space-between;pointer-
events:none}[data-wptds-carousel][data-default] [data-wptds-carousel-controls]> *{flex-grow:0;flex-
shrink:0}[data-wptds-carousel][data-default] [data-wptds-carousel-control]{cursor:pointer;inline-siz
e:var(--wptds-carousel-control-size);aspect-ratio:1;display:grid;place-content:center;border-
radius:50%;background-color:var(--wptds-carousel-control-bg-color);border:.0625rem solid var(--wp
tds-carousel-control-border-color);box-shadow:var(--wptds-carousel-control-box-shadow);color:var(--
wptds-carousel-control-fg-color);opacity:var(--wptds-carousel-control-opacity);pointer-
events:all}[data-wptds-carousel][data-default] [data-wptds-carousel-control]:active{--wptds-carous
el-control-bg-color:#fff;--wptds-carousel-control-border-color:#ddd;--wptds-carousel-control-box-
shadow:0rem .125rem .1875rem rgba(0,0,0,.1);--wptds-carousel-control-fg-color:#767676}[data-
```



```
wptds-carousel][data-default] [data-wptds-carousel-control]:focus-visible{outline-color:Highlight;outline-color:-webkit-focus-ring-color;outline-offset:.0625rem;outline-style:auto;outline-width:.0625rem}[data-wptds-carousel][data-default] [data-wptds-carousel-control] *{pointer-events:none}[data-wptds-carousel][data-default] [data-wptds-carousel-control]>svg{display:block}[data-wptds-carousel][data-default] [data-wptds-carousel-control][data-direction="start"]>svg{transform:scaleX(1)}[data-wptds-carousel][data-default] [data-wptds-carousel-control][data-direction="end"]>svg{transform:scaleX(-1)}[data-wptds-carousel][data-default] [data-wptds-carousel-control][aria-disabled="true"]{visibility:hidden;cursor:not-allowed}[data-wptds-carousel][data-default] [data-wptds-carousel-announce]{block-size:.0625rem;border:0;clip:rect(0 0 0 0);inline-size:.0625rem;margin:-.0625rem;overflow:hidden;padding:0;position:absolute}[data-wptds-carousel][data-default][data-variant="Normal"],[data-wptds-carousel][data-default][data-variant="FullWidth"]{--wptds-carousel-control-opacity:0}[data-wptds-carousel][data-default][data-variant="Normal"]:has([data-wptds-carousel-scroll-container]:focus-visible),[data-wptds-carousel][data-default][data-variant="Normal"]:has([data-wptds-carousel-control]:focus-visible),[data-wptds-carousel][data-default][data-variant="FullWidth"]:has([data-wptds-carousel-scroll-container]:focus-visible),[data-wptds-carousel][data-default][data-variant="FullWidth"]:has([data-wptds-carousel-control]:focus-visible){--wptds-carousel-control-opacity:1}[data-wptds-carousel][data-default][data-variant="Normal"][data-snap] [data-wptds-carousel-scroll-container]{scroll-snap-type:x proximity}[data-wptds-carousel][data-default][data-variant="Normal"][data-snap] [data-wptds-carousel-item]{scroll-snap-align:center;scroll-snap-stop:always}[data-wptds-carousel][data-default][data-variant="Normal"][data-snap] [data-wptds-carousel-item]:first-of-type{scroll-snap-align:start}[data-wptds-carousel][data-default][data-variant="Normal"][data-snap] [data-wptds-carousel-item]:last-of-type{scroll-snap-align:end}[data-wptds-carousel][data-default][data-variant="FullWidth"] [data-wptds-carousel-scroll-container]{scroll-snap-type:x mandatory}[data-wptds-carousel][data-default][data-variant="FullWidth"] [data-wptds-carousel-item]{inline-size:100%;scroll-snap-align:center;scroll-snap-stop:always}[data-wptds-carousel][data-default][data-variant="FullWidth"] [data-wptds-carousel-item]:first-of-type{scroll-snap-align:start}[data-wptds-carousel][data-default][data-variant="FullWidth"] [data-wptds-carousel-item]:last-of-type{scroll-snap-align:end}[data-wptds-carousel][data-default][data-variant="FullWidth"] [data-wptds-carousel-item]>*{inline-size:100%}[data-wptds-carousel][data-default][data-bleed-inline] [data-wptds-carousel-controls]{--control-side-gap:.25rem;inline-size:calc(100% - (var(--control-side-gap)*2));transform:translateX(calc(0rem + var(--control-side-gap))) translateY(-50%)}[data-wptds-carousel][data-desktop] [data-wptds-carousel-control]:hover:not([aria-disabled="true"]):not(:active){--wptds-carousel-control-bg-color:#fff;--wptds-carousel-control-border-color:#ddd;--wptds-carousel-control-box-shadow:0rem .125rem .3125rem rgba(0,0,0,.14);--wptds-carousel-control-fg-color:#111}[data-wptds-carousel][data-desktop][data-variant="Normal"]:has([data-wptds-carousel-scroll-container]:hover),[data-wptds-carousel][data-desktop][data-variant="Normal"]:has([data-wptds-carousel-control]:hover),[data-wptds-carousel][data-desktop][data-variant="FullWidth"]:has([data-wptds-carousel-scroll-container]:hover),[data-wptds-carousel][data-desktop][data-variant="FullWidth"]:has([data-wptds-carousel-control]:hover){--wptds-carousel-control-opacity:1}[dir="rtl"] [data-wptds-carousel][data-default] [data-wptds-carousel-controls]{transform:translateX(calc(0rem + (var(--wptds-carousel-control-size)/2))) translateY(-50%)}[dir="rtl"] [data-wptds-carousel][data-default] [data-wptds-carousel-control][data-direction="start"]>svg{transform:scaleX(-1)}[dir="rtl"] [data-wptds-carousel][data-default] [data-wptds-carousel-control][data-direction="end"]>svg{transform:scaleX(1)}[dir="rtl"] [data-wptds-carousel][data-default][data-bleed-inline] [data-wptds-carousel-controls]{transform:translateX(calc(0rem - var(--control-side-gap))) translateY(-50%)}.b_dark [data-wptds-carousel][data-default],.b_drk [data-wptds-carousel][data-default]{--wptds-carousel-control-bg-color:#484644;--wptds-carousel-control-border-color:#545250;--wptds-carousel-control-box-shadow:0rem .125rem .1875rem rgba(0,0,0,.1);--wptds-carousel-control-fg-color:#d2d0ce}.b_dark [data-wptds-carousel][data-default] [data-wptds-carousel-control]:active,.b_drk [data-wptds-carousel][data-default] [data-wptds-carousel-control]:active{--wptds-carousel-control-bg-color:#484644;--wptds-carousel-control-border-
```



```

color:#545250;--wptds-carousel-control-box-shadow:0rem .125rem .1875rem rgba(0,0,0,.1);--wptds-
carousel-control-fg-color:#d2d0ce}.b_dark [data-wptds-carousel][data-desktop] [data-wptds-
carousel-control]:hover:not([aria-disabled="true"]):not(:active),.b_drk [data-wptds-carousel][data-
desktop] [data-wptds-carousel-control]:hover:not([aria-disabled="true"]):not(:active){--wptds-carou-
sel-control-bg-color:#605e5c;--wptds-carousel-control-border-color:#545250;--wptds-carousel-
control-box-shadow:0rem .125rem .3125rem rgba(0,0,0,.14);--wptds-carousel-control-fg-
color:#faf9f8}.gs_card .iacfic .iacfmit .iacfimgc,.gs_card .iacfic .iacfmit .cico,.b_wpt_container .iacfic
.iacfmit .iacfimgc,.b_wpt_container .iacfic .iacfmit
.cico{width:100%!important;height:100%!important;border-radius:0}.gs_card .iacfic .iacfmit.iacfstc
img,.gs_card .iacfic .iacfmit .iacfimgc img,.b_wpt_container .iacfic .iacfmit.iacfstc
img,.b_wpt_container .iacfic .iacfmit .iacfimgc img{width:100%;height:100%;object-
fit:cover}Images of Distributed Energy Storage SolarWärtsilä's DC-coupled solar-plus-storage hybrid
enables Georgia Power What are distributed energy resources and how do they work ? , Cummins
Inc.Battery Energy Storage Systems and Rooftop Solar-Photovoltaics in Distributed PV Power
Generation System Solutions-Bright Solar Sustainability , Free Full-Text , Data-Driven Optimal
Battery Storage Distributed Energy Systems are the Future and the KEY is Storage Distributed
energy storage - a deep dive into it - Tycorun Battery Solar Power Storage , Solar Power NowHigh
Quality 100kw/215kwh Contains Solar Panel Charging Function Decentralized and Distributed
Energy Sources 101 , NATiVE SolarDistributed Energy Storage , The Climate Tech HandbookSee
all.b_imgcap_alttitle p strong,.b_imgcap_alttitle .b_factrow strong{color:#767676}#b_results .b_imgc
ap_alttitle{line-height:22px}.b_imgcap_alttitle{display:flex;flex-direction:row-reverse;gap:var(--mai-
smtc-padding-card-default)}.b_imgcap_alttitle .b_imgcap_img{flex-shrink:0;display:flex;flex-
direction:column}.b_imgcap_alttitle .b_imgcap_main{min-width:0;flex:1}.b_imgcap_alttitle
.b_imgcap_img>div,.b_imgcap_alttitle .b_imgcap_img a{display:flex}.b_imgcap_alttitle
.b_imgcap_img img{border-radius:var(--smtc-corner-card-rest)}.b_hList
img{display:block}.b_imagePair ner img{display:block;border-radius:6px}.b_algo .vtv2 img{border-
radius:0}.b_hList .cico{margin-bottom:10px}.b_title .b_imagePair> ner,.b_vList>li>.b_imagePair>
ner,.b_hList .b_imagePair> ner,.b_vPanel>div>.b_imagePair> ner,.b_gridList .b_imagePair>
ner,.b_caption .b_imagePair> ner,.b_imagePair> ner>.b_footnote,.b_poleContent .b_imagePair>
ner{padding-bottom:0}.b_imagePair> ner{padding-bottom:10px;float:left}.b_imagePair.reverse>
ner{float:right}.b_imagePair .b_imagePair:last-child:after{clear:none}.b_algo .b_title .b_imagePair{
display:block}.b_imagePair.b_cTxtWithImg>*>{vertical-align:middle;display:inline-
block}.b_imagePair.b_cTxtWithImg> ner{float:none;padding-right:10px}.b_imagePair.square_s>
ner{width:50px}.b_imagePair.square_s{padding-left:60px}.b_imagePair.square_s> ner{margin:2px
0 0 -60px}.b_imagePair.square_s.reverse{padding-left:0;padding-
right:60px}.b_imagePair.square_s.reverse> ner{margin:2px -60px 0
0}.b_ci_image_overlay:hover{cursor:pointer} sightsOverlay,#OverlayIFrame.b_mcOverlay sightsOv
erlay{position:fixed;top:5%;left:5%;bottom:5%;right:5%;width:90%;height:90%;border:0;border-rad
ius:15px;margin:0;padding:0;overflow:hidden;z-index:9;display:none}#OverlayMask,#OverlayMask.
b_mcOverlay{z-index:8;background-
color:#000;opacity:.6;position:fixed;top:0;left:0;width:100%;height:100%}IBMWhat Are Distributed
Energy Resources ...1 day ago · DER include both energy generation technologies and energy
storage systems. When energy generation occurs through distributed ...

```

Distributed Energy Storage and Smart Microgrids: The ...
 Apr 15, 2025 · As the world accelerates its transition toward clean energy, distributed energy storage and smart microgrids are emerging as transformative forces in the energy landscape. ...

Distributed Energy Solutions for Homes & Businesses
 Apr 25, 2025 · Distributed energy solutions by Elege--boost energy independence with reliable wind & solar systems for remote or rural sites.



Distributed Energy Solutions for Homes

Apr 25, 2025 · Distributed energy solutions by Elege--boost energy independence with reliable wind & solar systems for remote or rural sites.

Distributed, storage pairing ensures greener energy prospects

Dec 2, 2025 · An employee works at a production facility of Trina Solar Co in Suqian, Jiangsu province, on June 5. WANG LI/FOR CHINA DAILY Pairing distributed renewable energy with ...

Distributed Energy Storage Solutions for Solar ...

As a result, managing distributed energy storage resources has become critical for furthering distributed solar energy development. With grid ...

Solar Integration: Distributed Energy Resources and Microgrids

3 days ago · Simply put, we need a reliable and secure energy grid. Two ways to ensure continuous electricity regardless of the weather or an unforeseen event are by using ...

How does distributed energy storage integrate with solar power ...

Sep 26, 2025 · As a leading Distributed Energy Storage supplier, I've witnessed firsthand the transformative potential of this integration. In this blog, I'll delve into how distributed energy ...

Future-proofing energy infrastructure resilience with distributed

Oct 1, 2025 · This study assesses the economic, environmental, and resilience benefits of Distributed Energy Resources, focusing on solar photovoltaic systems paired with battery ...

Distributed Energy Resources: Powering a Smarter Future

Aug 1, 2025 · Discover how Distributed Energy Resources like solar inverters, battery storage, and microgrids are transforming energy efficiency, resilience, and savings.

What Are Distributed Energy Resources (DER)? , IBM

1 day ago · DER include both energy generation technologies and energy storage systems. When energy generation occurs through distributed energy resources, it's referred to as distributed ...

Contact Us

For technical specifications, project proposals, or partnership inquiries, please visit:

<https://lopianowa.pl>



Scan QR Code for More Information



<https://lopianowa.pl>