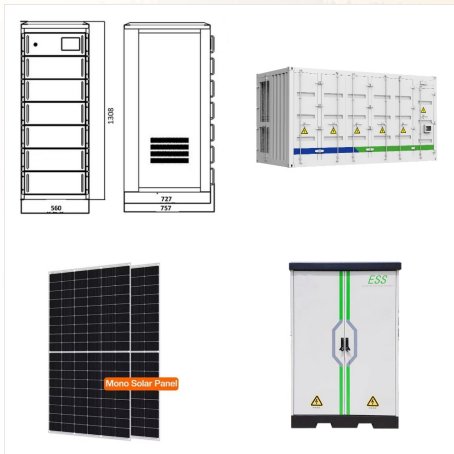




NYSERDA Energy Storage Projects, Dhruv Bhatnagar, Sandia National Laboratories, (PDF, 2.1 mb)
 Nevada Detroit Edison's Advanced Implementation of Community Energy Storage Systems for Grid Support, Haukur (Hawk) Asgeirsson, PE, Detroit Edison, (PDF, 1.3 mb)
 Notrees Wind Storage, Jeff Gates



This document summarizes a project to implement aggregated community energy storage (CES) systems in Detroit Edison's utility territory. The project aims to demonstrate CES capabilities ???



Detroit Edison Community Energy Storage Project
 Lithium Ion Battery 1,000 2:00 Operational July 1, 2011
 Michigan Voltage Support Renewables Energy Time Shift Metlakatla BESS Lead Acid Battery 1,000 1:24 Operational not stated
 Alaska Electric Supply Reserve Capacity - Spinning Frequency Regulation Wind-to-Battery MinnWind Project

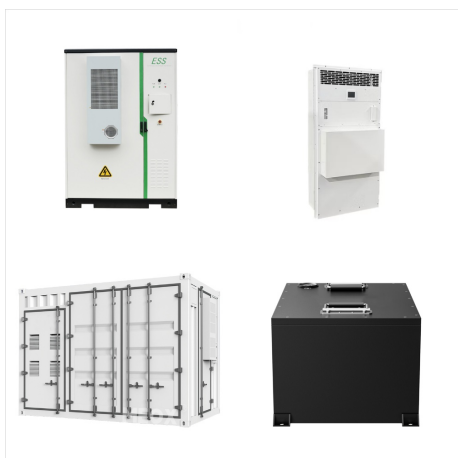
DETROIT EDISON COMMUNITY ENERGY STORAGE PROJECT



Ventura County received an upgrade in reliability this summer with the opening of a new battery storage facility in Saticoy that integrates new green technology into Southern California Edison's existing grid. Ventura Energy Storage is one of the largest of its kind, boasting a 100-megawatt, 400-megawatt-hour battery system to help provide power during peak demand.



The Ludington Pumped Storage Plant is a hydroelectric plant and reservoir in Ludington, Michigan was built between 1969 and 1973 at a cost of \$315 million and is owned jointly by Consumers Energy and DTE Energy and operated by Consumers Energy. At the time of its construction, it was the largest pumped storage hydroelectric facility in the world.



Detroit Edison's community energy storage (CES) project uses twenty 25-kilowatt, 2-hour lithium-ion batteries from Dow Kokam. The batteries can provide backup power, store rooftop solar, charge

DETROIT EDISON COMMUNITY ENERGY STORAGE PROJECT



Detroit Edison's Advanced Implementation of Community Energy Storage Systems for Grid Support (DE-OE0000229) Nicholas Carlson Senior Engineer Community Energy Storage ??? The project is a proof of concept of an aggregated Community Energy Storage (CES) system in a utility territory; demonstrating the following capabilities:



Distributed Energy Storage Projects Vanadium Redox: City of Painsville, OH Community Energy Storage; 20units @ 25kW, 50kWh Lead/Carbon, EastPenn Frequency regulation, Peak shifting; 3MW, 1-4MWh Lead/Carbon, Public Service New Mexico Smoothing of 500MW PV installation; 500kW, 2.5MWh ARRA Project puts 20 Li-Ion CES Units on Detroit Edison

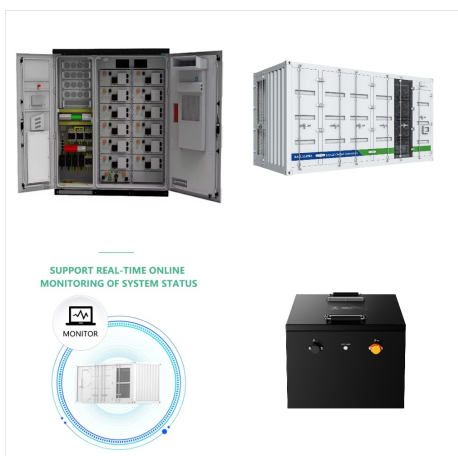


Within the next four decades, our entire energy portfolio will be producing carbon-free energy. Our goals are: Cut carbon emissions in half by 2028 and 80% by 2040; Achieve net-zero emissions (carbon neutrality) by 2050; We are the largest producer of wind and solar energy in the state, generating enough clean energy to power 700,00 Michigan homes.

DETROIT EDISON COMMUNITY ENERGY STORAGE PROJECT



for 16 energy storage demonstration projects. The projects ranged in scope from feasibility studies and technology demonstrations to full-scale, operational energy storage plants. This investment had a significant positive impact on the grid-connected energy ???



LUDINGTON, Mich., Feb. 7, 2011 /PRNewswire/ -- Consumers Energy and Detroit Edison, co-owners of the Ludington Pumped Storage Plant, today announced a major maintenance and upgrade project that



It could be said that an energy storage system is community storage if it is (1) located within a community with defined boundaries, (2) serves such a community or (3) both of these things.

DETROIT EDISON COMMUNITY ENERGY STORAGE PROJECT



Smart Grid Business Case Analysis ??? May 2015 . The SGIG Program is much larger and includes 99 unique projects. The purpose of the grant program is to accelerate the modernization of the nation's electric transmission and distribution systems and promote investments in smart grid technologies, tools, and techniques that increase flexibility, functionality, interoperability, ???



Detroit Edison also plans to introduce a second-phase of the SolarCurrents programs in which the company will install large-scale solar energy panels on customer rooftops or property. In return, Detroit Edison will pay long term leasing or rental fees to the property owners. Further details on the next phase of the SolarCurrents program are expected in the ???



DTE Energy announced Monday it will build a battery energy storage facility at the recently retired Trenton Channel coal plant. DTE Energy CEO and Chairman Jerry Norcia said this is the largest coal plant to energy storage conversion project in the Great Lakes Region.

DETROIT EDISON COMMUNITY ENERGY STORAGE PROJECT



DTE expects the project to be the biggest standalone battery energy storage project in the Great Lakes region when it's completed in 2026. a landmark for the Downriver community. DTE burned



Piloting community energy storage. In 2010, Detroit Edison electric company developed a community energy storage pilot in Michigan to strengthen the local electric grid and integrate a 500 kW



DTE is developing renewable energy projects across Michigan. Our projects create jobs, provide economic benefits to local communities and help protect the environment for future generations. Download a map of our renewable energy projects.

DETROIT EDISON COMMUNITY ENERGY STORAGE PROJECT



Detroit Edison (Advanced Implementation of Energy Storage Technologies) DTE Energy demonstrated the use and benefits of Community Energy Storage (CES) systems to strengthen grid reliability and test the ability to integrate secondary-use electric vehicle (EV) batteries into the CES demonstration effort in their service territory at the Trinity Circuit.



The facility will serve as a 220-megawatt battery energy storage center, which DTE Energy said is enough electricity to power nearly 40,000 homes. It will store excess electricity and distribute



Rosamond Central BESS is contracted with Southern California Edison ("SCE") under a long-term resource adequacy ("RA") agreement. Rosamond Central BESS represents a \$400 million investment in Kern County and is one of the first battery energy storage projects financed under the Inflation Reduction Act's energy community bonus

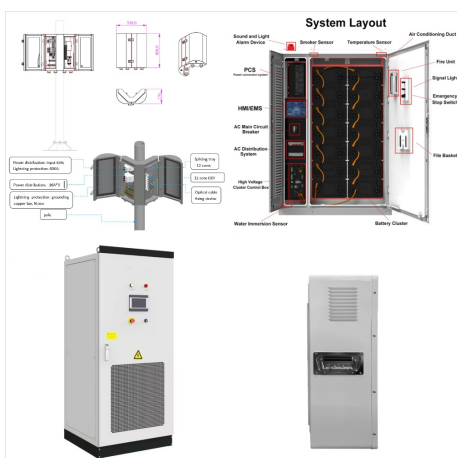
DETROIT EDISON COMMUNITY ENERGY STORAGE PROJECT



Detroit Edison One Energy Plaza Detroit, MI
48226-1221 313 -235 9371-com PARTNERS KEMA
Inc lectrical Distribution esign Inc. NextEnergy
National Grid USA Service Company Inc PROJECT
DURATION 01/01/2010???09/30/2015 BUDGET
Total Project Value \$10,877,258 DOE/Non-DOE
Share \$4,995,271/\$5,881,987 EQUIPMENT A123
Systems Community Energy



? At the time of its commissioning, the Trenton
Channel plant was the fourth major power plant
Detroit Edison (now DTE Energy) put into operation
and the largest project the company had
undertaken. With the expansion of Trenton Channel
in 1950, the facility generated 1,060 MW of energy
for customers. Following the end of the Second
World War, the



Enhances DTE's Strategic Focus as Premier,
Predominantly Pure-Play Regulated
Michigan-Based Utility Detroit, July 01, 2021
(GLOBE NEWSWIRE) - DETROIT, July 1, 2021 ???
DTE Energy Company ("DTE Energy") (NYSE:
DTE) announced today that it has completed the
previously announced spin-off of its non-utility
natural gas pipeline, storage and gathering ???