Detroit Edison’s Advanced Implementation of Community Energy Storage Systems for Grid Support

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First DTE Energy Installed CES Unit

Overview of DTE Energy CES Project

* Benefits: Volt/Var Support, Circuit Load Leveling, Regulation Services (AGC), Renewable Integration

Distributed CES Units serving homes and interconnecting with the larger circuit

Integration of Large Solar and Storage at Monroe County Community College

CES Parameters

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</tr>
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<tr>
<td>Energy</td>
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<tr>
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<td>240/120V AC</td>
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<td>Battery</td>
<td>PEV Li-Ion</td>
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Electric Vehicle integration

* Two CES units will be powered using recycled Electric Vehicle batteries

CES Installation Overhead View: Monroe

DTE Energy
Merchant Operation Center

DTE Energy System Operations Center (EMS)

ICCP, Web Services

Internet (VPN)

Internet (SSL)

SCADA

CES Communication Architecture

Distribution Circuit

A123 Systems Energy Storage & PV

ICES

CES

Integration to Substation

20 Transformers Total In Trinity DC 9342 Circuit (500kW)

500kW Battery Supply

AC/DC

DC/AC

20/60 kVA  Battery Supply added to residential Transformer

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