



# Power Supply and Energy Services Report

Ingmar Sterzing, VP, Power Supply and Energy Services

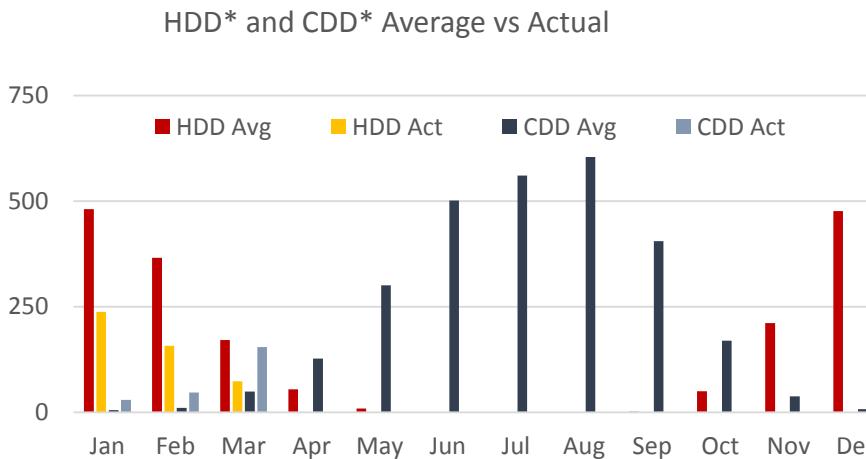
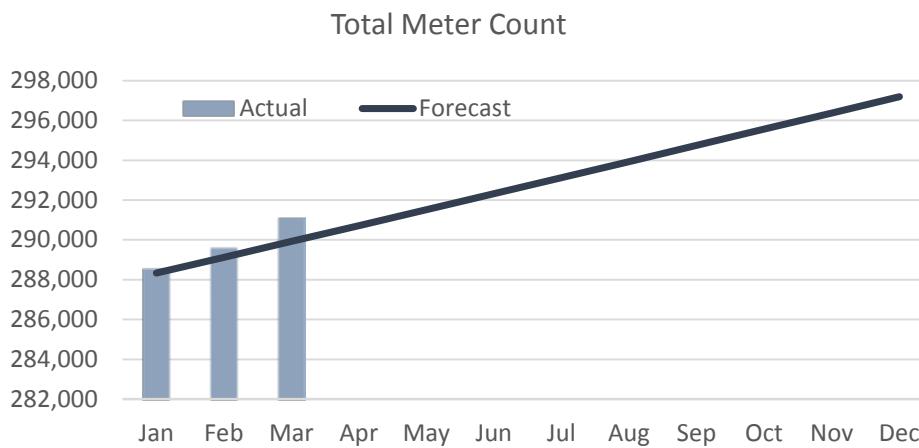
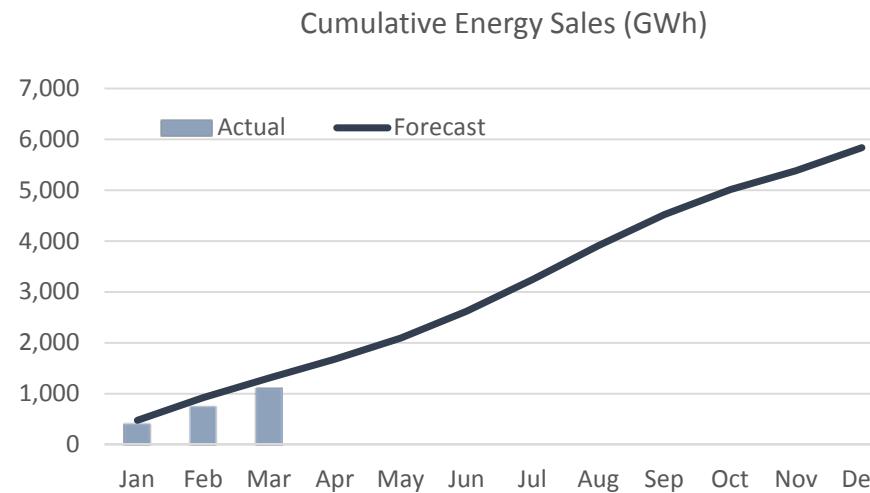
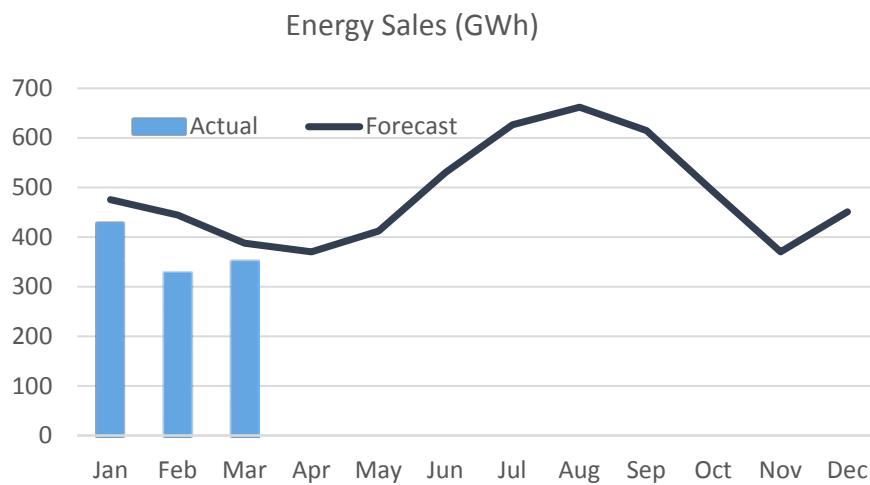
May 15, 2017

# Electric Vehicle EV Charging

- Number of plug-in vehicles is increasing
- Potential benefits to Members and PEC
  - Member energy savings
  - Increased Load Factor, Distributed Energy Resource, and Demand Management
- Request for Information (RFI) complete January 2017
- Key components for a successful EV charging program
  - Proven network service and data analytics partner
  - Smart and connected charge station technology
  - Turn-key solution delivery options
  - Supporting rates and adoption incentives
- Implement and test pilot installations
- Consider adoption of an EV charging rate
- Consider home charging program offer that includes charging stations in empower loan program



# PEC Energy Sales Summary for March 2017



# Energy Services Update for March 2017

	2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
<b>Energy Audits Performed</b>	<b>281</b>	21	22	19										62
<b>Interconnections Complete</b>	<b>354</b>	26	27	34										87
<b>Residential Units Installed</b>	<b>1256</b>	0	128	80										208
<b>Residential Rebates Monthly (\$k)</b>	<b>\$440</b>	0	41	25										66
<b>Residential Rebate Budget Remaining (\$k)</b>	<b>NA</b>	300	259	234										234
<b>Comm. Rebate Applications Approved</b>	<b>18</b>	0	3	1										4
<b>Comm. Rebates Monthly (\$k)</b>	<b>\$143</b>	0	24	1										25
<b>Commercial Rebates Budget Remaining (\$k)</b>	<b>NA</b>	200	176	175										175
<b>Empower Loan Applications Received</b>	<b>29</b>	0	0	1										1
<b>*Empower Loans Final Approval Monthly</b>	<b>10</b>	2	0	0										2

\* The Empower Loan Final approval is contingent upon approval of the interconnection and installation



# Rate Competitiveness- As of Mar 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>PEC Residential Bill at 1,000 kWh Usage</b>	\$105.20	\$105.20	\$105.20									
<b>Texas Coop Average Bill at 1,000 kWh</b>	\$112.77	\$110.50	\$110.50									
<b>Texas Residential Average Bill at 1,000 kWh</b>	\$108.60	\$108.82	\$114.10									
<b>National Residential Average Bill at 1,000 kWh</b>	\$122.10	\$122.10	\$128.20									



# Residential Rate Option Participation – Mar 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Conventional</b>	174,683	165,993	167,237									
<b>Esaver</b>	19,130	18,799	18,919									
<b>Ebilling</b>	50,990	50,298	50,735									
<b>Edraft</b>	27,424	26,349	26,550									
<b>Time of Use</b>	-	21	24									
<b>Renewable Rider</b>	352	352	352									
<b>Interconnection Net Metering</b>	1,292	1,319	1355									
<b>Water Wells</b>	1,999	1,971	1967									



# Project Status March 2017

Project or Initiative	Status
Time of Use (TOU) Rates	<ul style="list-style-type: none"> <li>• Time of Use effective April 1, 2017</li> <li>• Development of Large Power TOU calculator under way</li> </ul>
Distributed Solar Project	<ul style="list-style-type: none"> <li>• Power Purchase Agreements (PPAs) for 11 projects totaling 11 MWs have been completed</li> <li>• The remaining 4 projects totaling 4 MWs will be completed in May/June</li> <li>• Construction to start in May/June 2017</li> </ul>
“Cooperative” Solar Rate Option	<ul style="list-style-type: none"> <li>• Final Tariff Amendment to be presented to PEC Board in May 2017</li> <li>• Tariff Effective date anticipated for Winter 2018</li> </ul>
Electric Vehicle (EV) Charging Pilot	<ul style="list-style-type: none"> <li>• Following completion of the Vendor Request for Information (RFI), PEC is working to establish preliminary agreements for networking, installation, and equipment partners</li> <li>• Initiating first pilot installations in conjunction with Johnson City HQ remodel project</li> </ul>
Bring Your Own Thermostat (BYOT) Program	<ul style="list-style-type: none"> <li>• Vendor proposals have been received and are in evaluation</li> <li>• Project is proposing a limited scope pilot test to complete during Summer of 2017</li> </ul>
Empower Loan Program	<ul style="list-style-type: none"> <li>• Revise loan guidelines to adjust requirement for 12 Mo. Billing history and add car charging stations as a covered loan item</li> </ul>
Large and Small Power Interconnected Tariff	<ul style="list-style-type: none"> <li>• Tariff amendment approved and will be effective July 1, 2017</li> </ul>
Power Supply and Energy Management Initiative	<ul style="list-style-type: none"> <li>• Draft policy prepared and awaiting responses from third party Energy Managers</li> </ul>
Time of Use (TOU) for Interconnected Members	<ul style="list-style-type: none"> <li>• Technical and system upgrades are in development</li> </ul>
TCEQ Battery Storage Project	<ul style="list-style-type: none"> <li>• Preliminary project planning continues</li> </ul>
Microgrid Marble Falls Operations Center Project	<ul style="list-style-type: none"> <li>• Executive meeting with Advanced Microgrid Systems (AMS) complete,</li> <li>• Engineering discussion ongoing, final one lines on microgrid configuration underway</li> </ul>





pec.coop