



Arizona's Cooperatives Summer Preparedness Report to ACC 2015

Presented by Arizona's G&T Cooperatives

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www.azgt.coop

Arizona Electric Power Cooperative, Inc. • Southwest Transmission Cooperative, Inc. • Sierra Southwest Cooperative Services, Inc.

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Who are the Arizona's G&T Cooperatives?



- Arizona Electric Power Cooperative (AEPCO)
 - Generation Owner & Provider for 3 All Requirements Member (ARM) and 3 Partial Requirements Member (PRM) Distribution Cooperatives
 - Power Supply Entity for ARMs and part for PRMs
- Southwest Transmission Cooperative (SWTC)
 - Transmission Owner & Provider for AEPCO and all Members
- Sierra Southwest Cooperative Services (Sierra)
 - Manpower organization for AEPCO and SWTC

Distribution Cooperatives Represented by AZGT

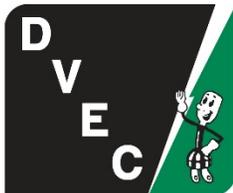


- G&T **All** Requirement Members:

Anza Electric Cooperative, Inc.

A Touchstone Energy® Cooperative 

Anza, California



**Duncan Valley
Electric Cooperative, Inc.**

A Touchstone Energy® Cooperative 

Duncan, Arizona



A Touchstone Energy®
Cooperative 

Pima, Arizona

Distribution Cooperatives Represented by AZGT Con't



- G&T *Partial* Requirement Members:



**Sulphur Springs Valley
Electric Cooperative, Inc.**

A Touchstone Energy® Cooperative 

Sierra Vista & Wilcox, Arizona



Marana, Arizona



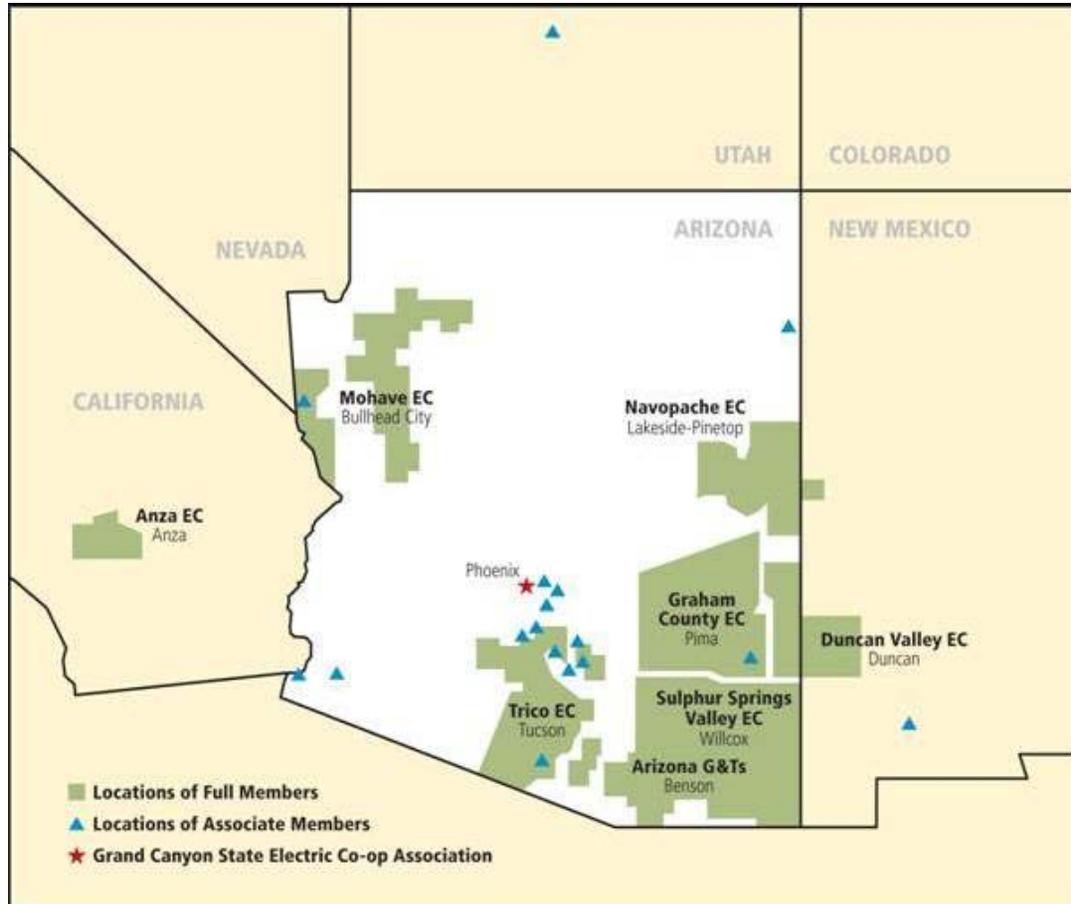
Bullhead City, Arizona

Other Arizona Distribution Cooperatives Included in AZGT's Report



Lakeside, Arizona

Member Cooperatives' Service Territories



Summary

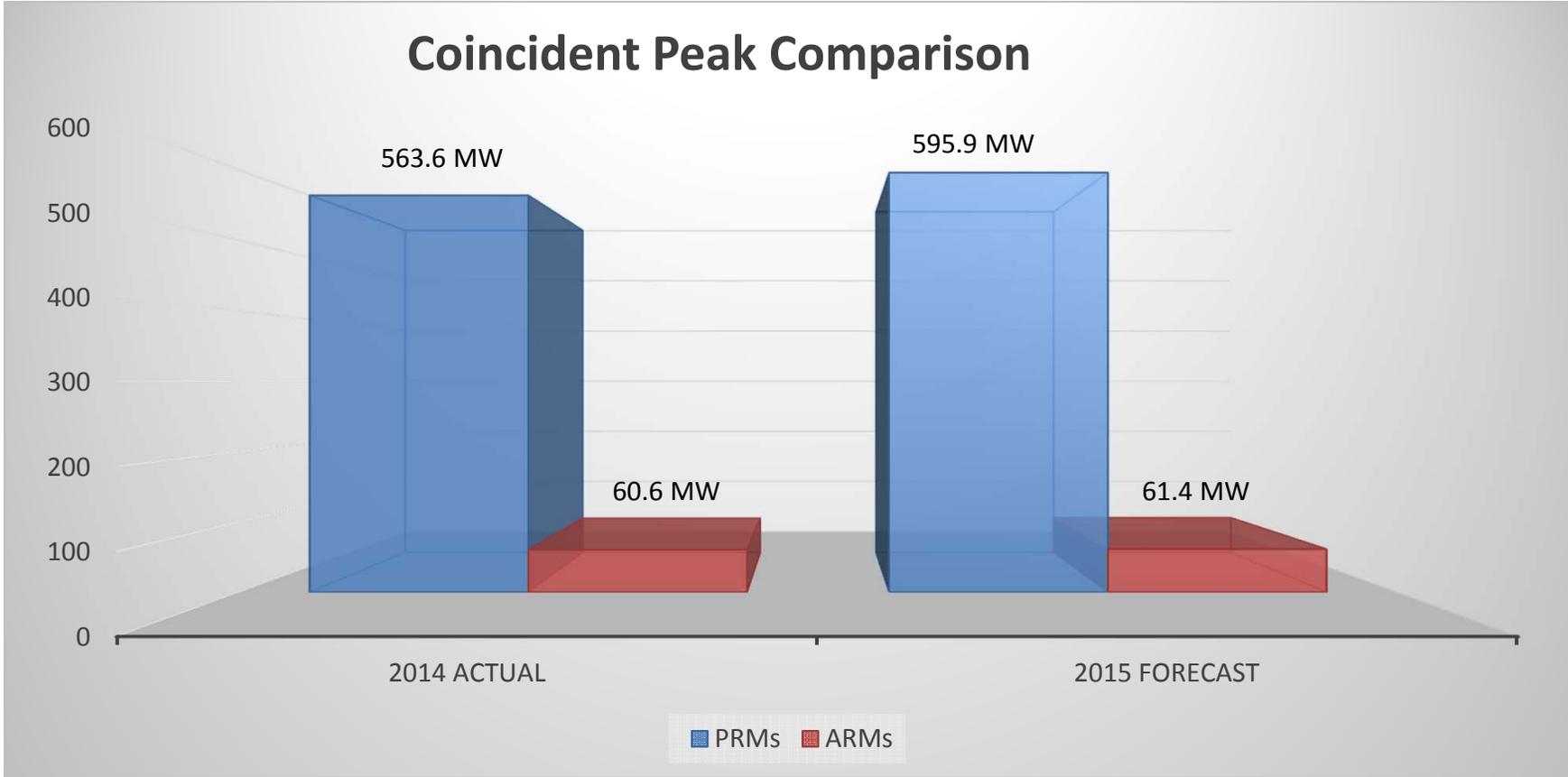


AzGT has sufficient resources to meet the coincident peak demand for its ARMs and its allocated capacity obligation to each of its PRMs.

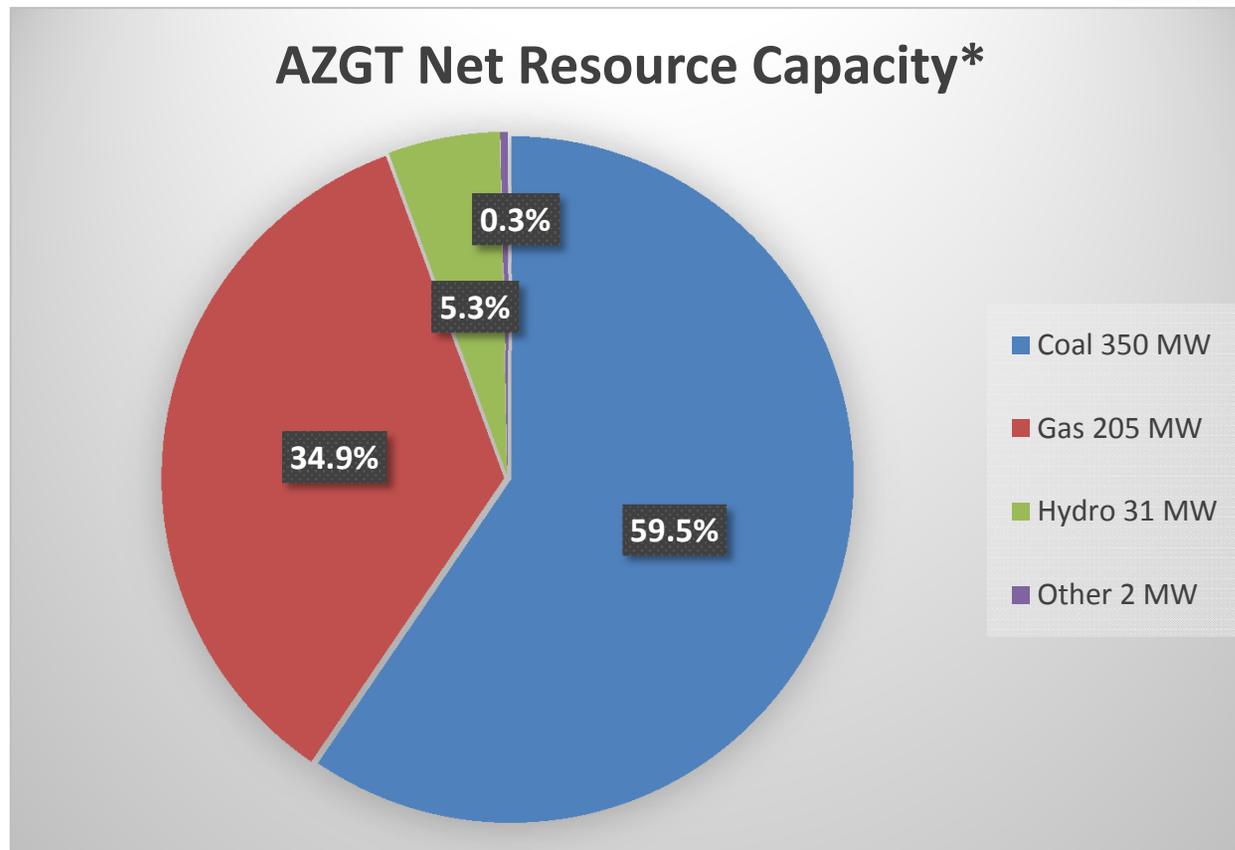
- Summer peak demand for AzGT's ARMs for 2015 is projected to be 61.4 MW, in comparison with 2014's actual peak of 60.6 MW.
- Summer peak demand for AzGT's PRMs for 2015 is projected to be 595.9, in comparison with 2014's actual peak of 563.6 MW.
- PRMs need to supplement their Allocated Capacity (AC) in AzGT resources in order to satisfy their summer peak load requirements. Additional resources and firm purchased power transactions are scheduled to fully meet PRM peak load requirements.

Navopache's projected summer peak load of 71 MW will be met by its 7 MW of federal hydro and the balance will be supplied by PNM as firm energy from PNM resources.

2015 Peak Forecast vs. 2014 Actual



AZGT Resource Portfolio - 2015

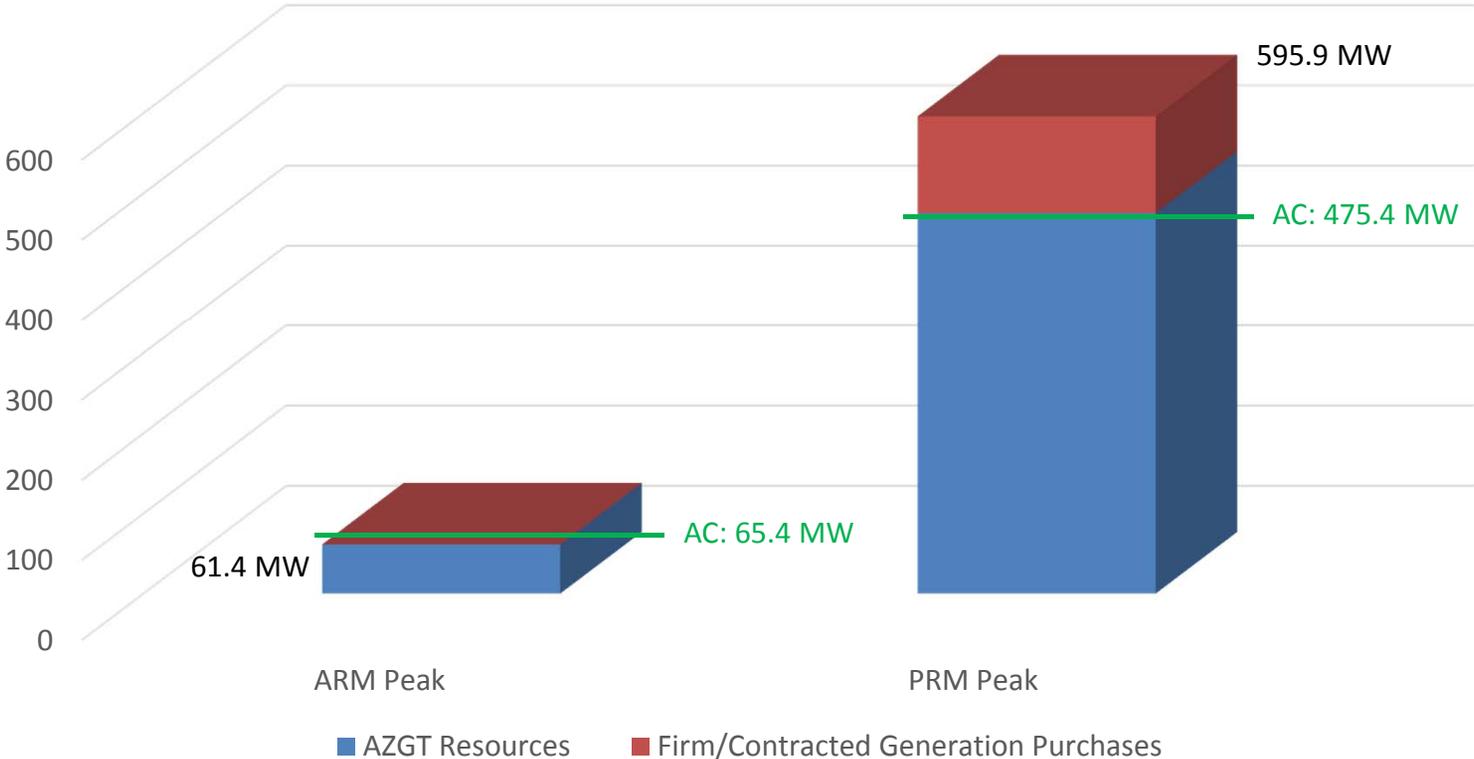


*Excludes MW held back for losses and contingency reserves.

Summer 2015 Demand Forecast



Meeting 2015 Summer Peak Demand*



*Represents possible capacity mix for peak load service under normal operating conditions.

Resource Providers' Services



- G&T Cooperatives
 - All Requirements Members receive all resource-related scheduling, trading and ancillary services under their All Requirements contracts.
 - PRMs need to contract for such services from G&T or third party providers.
 - For the summer of 2015, all PRMs will reside in SWTC subsystem of Western Balancing Area with AEPCO as their Scheduling & Trading Agent.
 - Navopache receives all necessary resource-related services from PNM and is in PNM Balancing Area.

AZGT Reserves



- The Cooperative maintains an annually updated plan in case of the loss of its single largest hazard under peak load conditions.
 - For immediate response, AzGT continues membership in the Southwest Reserve Sharing Group (SRSBG).
 - For the event of an extended outage, AzGT maintains:
 - Additional generation capacity which is 'held back' under normal operation
 - Transmission Capacity to cover the largest unit outage
 - Additional arrangements with transmission counterparties for emergency market access
- These arrangements are sufficient to respond to forced generation outages or other potential service disruptions.

AZGT Fuel Summary



- Coal

- Guidelines are in place to maintain adequate fuel supply for full-load, prolonged operation.
- Coal inventory is currently and is expected to be at adequate levels per Cooperative guidelines.
- Coal supply and rail transportation contracts are in place to meet full requirements.

- Natural Gas

- AEPCO has contracted with El Paso natural gas pipeline for firm gas transportation to supply its Apache Station units.
- Transportation has been secured for both hourly peak usage and daily burn requirements.

AZGT Generation Preparedness

- Coal Unit Maintenance

- Apache Unit 2 currently in Minor Overhaul for summer.
- Apache Unit 3 will also undergo an outage in late April for minor maintenance and improvements, as well as to confirm operational readiness.



- Gas Unit Testing

- Each gas unit is tested on a periodic basis to ensure startup capability and operational readiness.
- All units functional and usable for both spin and non-spinning reserve obligations.

AZGT Transmission Overview

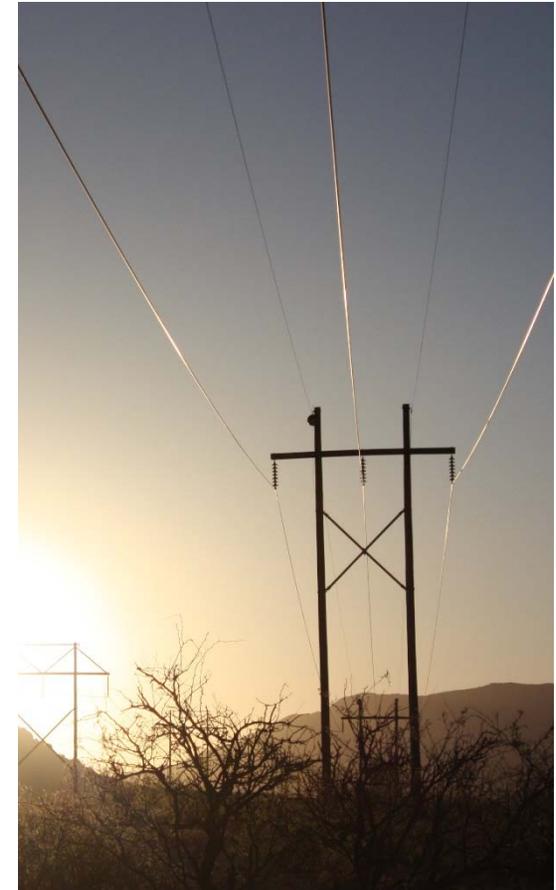
- 622 Miles of Transmission Line
- 26 Substations
- Transmission services agreements in place to meet all members load requirements:
 - WAPA
 - SCE
- Backup and Contingency Agreements
 - APS
 - TEP



AZGT Transmission System Summer Preparation

Transmission and substation maintenance and training scheduled to be complete prior to summer include:

- All scheduled preventative maintenance activities prior to summer loads.
 - All power circuit breakers are tested on an annual basis to ensure functioning.
 - Transformer setting adjusted for optimal voltage levels.
- Inspections and reliability
 - Every substation is inspected every 90 days.
 - Completed year three of a five year transmission wood pole ground line inspection program. Identified damaged poles are replaced before the start of the summer season.
- Focused line-inspection and vegetation management activities
 - Inspection of all transmission lines performed biannually.
 - Winter months special attention given to high vegetation areas



AZGT Operational Preparedness

- Participated in the WECC Reliability Coordinator regional restoration training.
- Updated G&T Joint Generation Contingency Reserve Plan for outage of Apache coal-fired steam units.
- Replacement of the Energy Management System (EMS).
 - Including Smart Grid integration, remote system control operations, as well as security upgrades.
- Successful completion of WECC Audit of operations with *zero* violations.



Summary of 2015 Summer Preparedness



- Sufficient resources, supplemented by firm purchases, will be sufficient to meet forecasted demand and energy needs.
- Fuel supply and transmission are in place to meet AEPCO's peak obligation.
- Operationally, AzGT is well prepared and contingency plans and more than adequate reserves are in place for emergencies.
- Transmission system is robust and ready to serve the load of ARM and PRM Members.

Questions?