

COMBINED HEAT AND POWER

Dan Skowronski

**SOMETIMES CALLED
COGENERATION**

**GENERATE ELECTRICITY WITH
WASTE HEAT USED FOR
SECONDARY PURPOSE**

DICOTAMY:

- **LARGE MACHINES THAT SELL
PRIMARILY TO GRID**
- **BEHIND THE METER ON-SITE
GENERATION**

CURRENTLY APPROXIMATELY
4400 INSTALLATIONS WITH 82.7
GW NATIONALLY (8% OF
CAPACITY BUT 12% OF ACTUAL
GENERATION)

REPORTED ENERGY
EFFICIENCY OF
APPROXIMATELY 65% TO 85%

PURPA (1978)

- NO SIZE LIMITATION ON COGENERATION
- UTILITY MUST PURCHASE AT AVOIDED COST

CHANGES SINCE INCEPTION OF PURPA:

- **ORIGINALLY - A PATHWAY
TO DEVELOPING LARGE NON-
UTILITY GENERATION**
- **NOW – MORE TRULY TWO
USES OF ENERGY**

REASONS FOR CHANGE:

- EWG AND OPEN ACCESS TRANSMISSION UNDER ENERGY POLICY ACT OF 1992
- RESTRICTIONS ON COGENERATION IN THE ENERGY POLICY ACT OF 2005

BEING A PURPA COGEN QF STILL MAY HAVE BENEFIT

- **MUST PURCHASE PROVISION WHERE
NO COMPETITIVE RTO**
- **WHERE COMPETITIVE RTO MUST
PURCHASE WHEN LESS THAN 20MW**

PURCHASING PRACTICES OF VERTICALLY INTEGRATED UTILITIES VARY WHERE NO COMPETITIVE RTO

**THIS PRESENTATION
FOCUSES MAINLY ON
BEHIND THE METER
APPLICATIONS**

DRIVERS FOR INSTALLATION:

- **NEW BUILDING OR INDUSTRIAL APPLICATION OR EXPANDED CAMPUS**
- **NEED TO REPLACE OR AUGMENT ON-SITE BOILERS**
- **ECONOMIC INCENTIVES**

**CAN IN SOME CASES BE USED AS
EMERGENCY GENERATION (ISLANDING
CAPABILITY) BUT NEED CONTROLS**

STATE RELATED ISSUES:

- RECS?
- NET METERING?
- FEED-IN TARIFF?
- THIRD-PARTY OWNERSHIP?

UTILITY RELATED ISSUE

- **STANDBY CHARGE OR DEMAND CHARGE?**

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