

How to Start an Energy Efficiency Program

Presented by:

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Introductions

- Jill Christian
 - City of Boerne
 - New perspective on energy conservation
- Ned Brown
 - Schneider Engineering, Ltd.
 - In and around conservation since mid-80's
 - Conservation / Renewable Planning Service



About City of Boerne

- Land area = 10.47 square miles
- Population = 11,432
- Multi-utility
- Electric, water, waste-water, gas, solid waste and recycling services
- Other interesting characteristics



About Schneider Engineering

- Full-service electric utility engineering consulting firm
- Engineering, Planning, Regulatory and Field Services
- Clients – utilities and other business partners in electric utility business
- Goal – To help our Clients succeed in the electric utility business by providing quality engineering services



Introduction – Conservation Planning

- Today's topic:
 - Been a topic for quite a long time
- “Freeze in the dark”



Conservation Planning - Today

- Conservation / energy efficiency is evolving
 - Technology / Smart Grid-AMI
 - 2008 Cost Increases
 - Customer expectations
- Today's presentation
 - Provide a perspective of a small MOU
 - Insights and lessons learned

Big Picture: What's driving EE/C?

- Resource Plans
- Statutory / Regulatory Requirements
- Board / Council Directives
- Management Directives
- Community / Customer Demand
- Technology

What are the drivers for Boerne?

- Council and City Manager
- Regional utilities and advertising / media spillover
- COB has some existing C/EE activities—but wants to do more!
 - New customer packets
 - Website information / links
 - Handouts and brochures
 - Energy Efficiency Month

Energy Efficiency Month



Once decision is made—then what?

- How to get started?
- What are the goals?
- What programs to design?
- SE Recommendation:
 - Do a plan
 - Consider from all perspectives
 - Get some help

Boerne—Getting Started

- COB turned to Schneider Engineering
- First step: City formed internal team
 - Assistant City Manager
 - Director of Finance
 - Customer Service Supervisor
 - Other key staff



Planning Approach

- Team formed
- Consultant as resource and project manager
- Client ultimately responsible
- View C/EE from all perspectives
 - Current offerings
 - Internal facilities and practices
 - Current policies? Current ordinances?
 - Current rates / financial conditions
 - Anticipated budgets / funding for C/EE

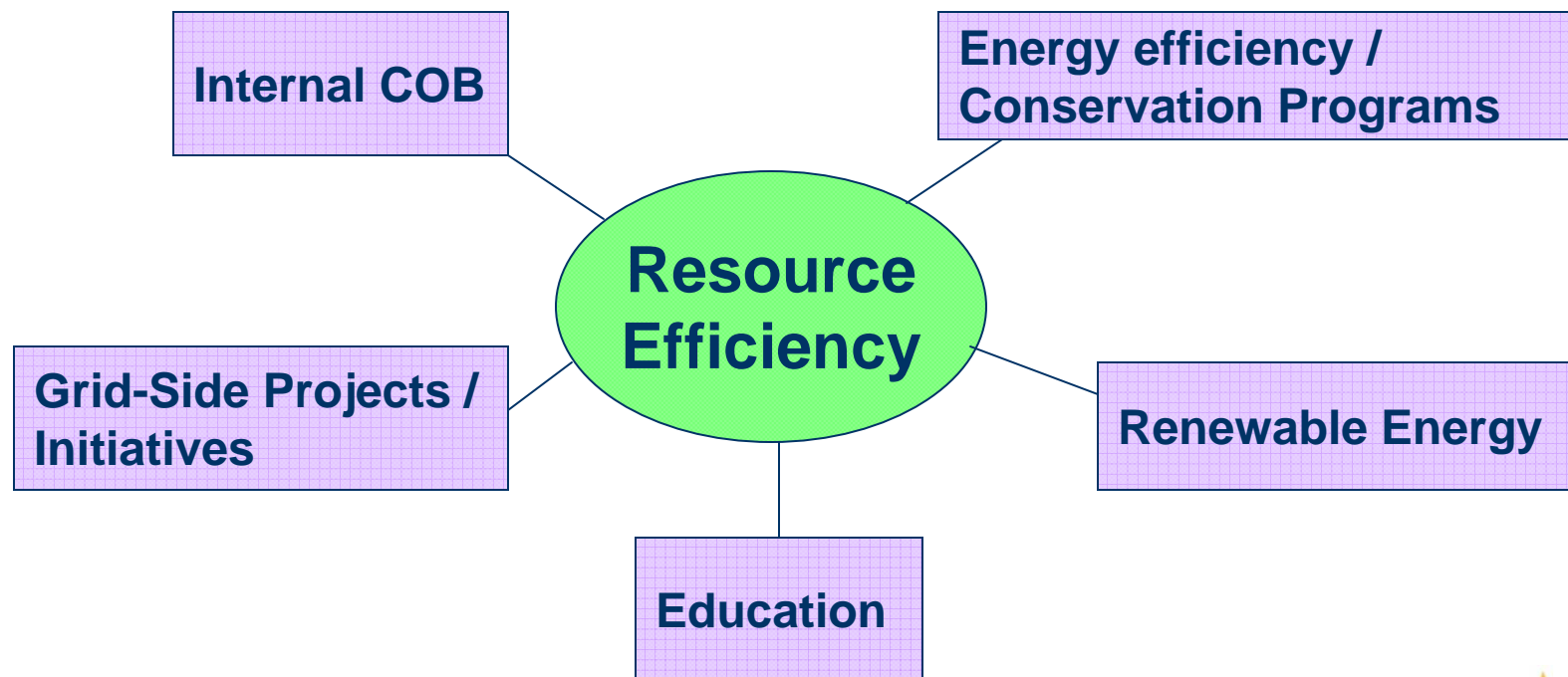
Risks of not-planning

- Developing something—just to “do something”
- Staff didn’t have the experience or the time to focus and consider all options
- At first team meeting—many different options / perspectives were presented / discussed
- Much more than rebates!

Step 1 = Define the scope

- Boerne is more than an electric utility
 - Electric, water, gas, solid waste
- Project scope—team developed theme of **“Resource Efficiency”**
- As wholesale purchaser of energy – what type of investment is realistic?

Step 2 = Develop Project Model



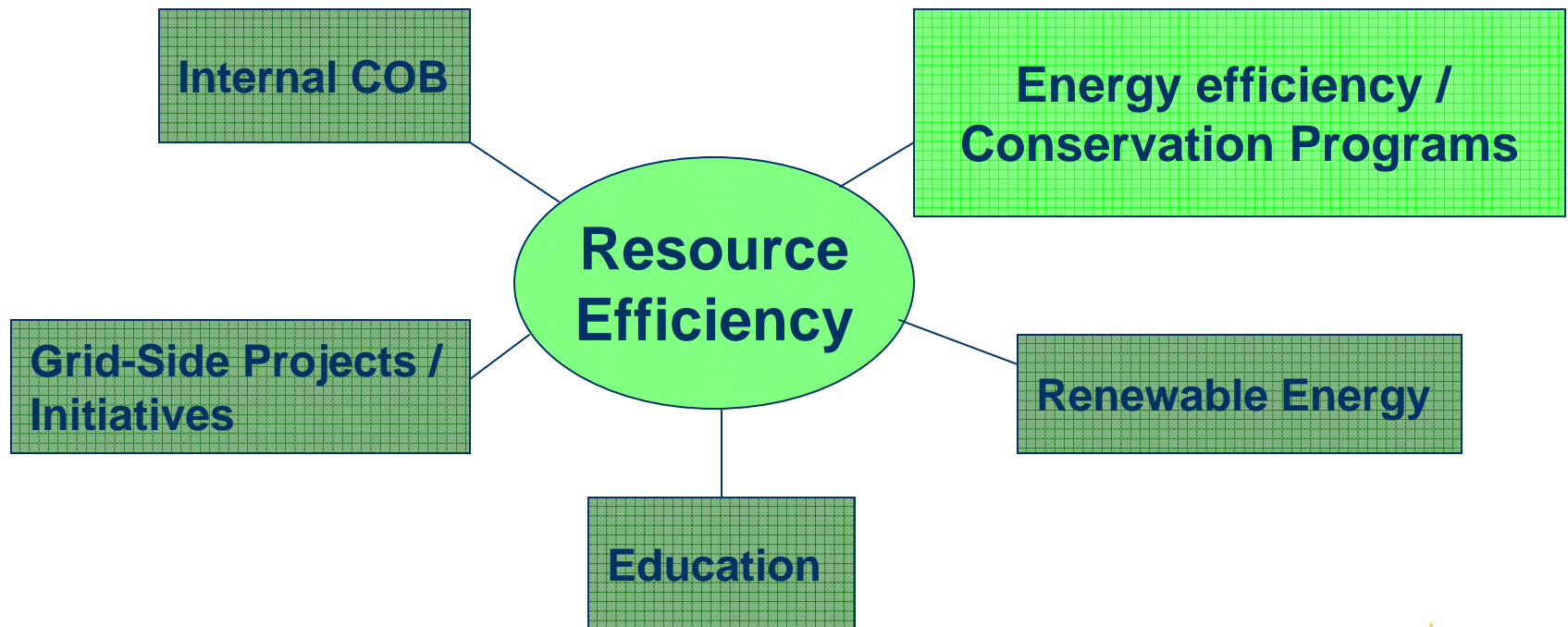
Step 3 = Get Input

- City Council – informed council and got input (very positive)
- Stakeholders
 - Key Accounts
 - Trade Allies
 - Others
- Regional Utilities – shared program information and anecdotes

Step 4 = Drill Down / Develop Actions

- Brainstormed / looked at all possibilities for each category
- Researched and looked at cost / financial realities
- Looked at phased approach
 - What can be done “now”
 - Next year
 - Future

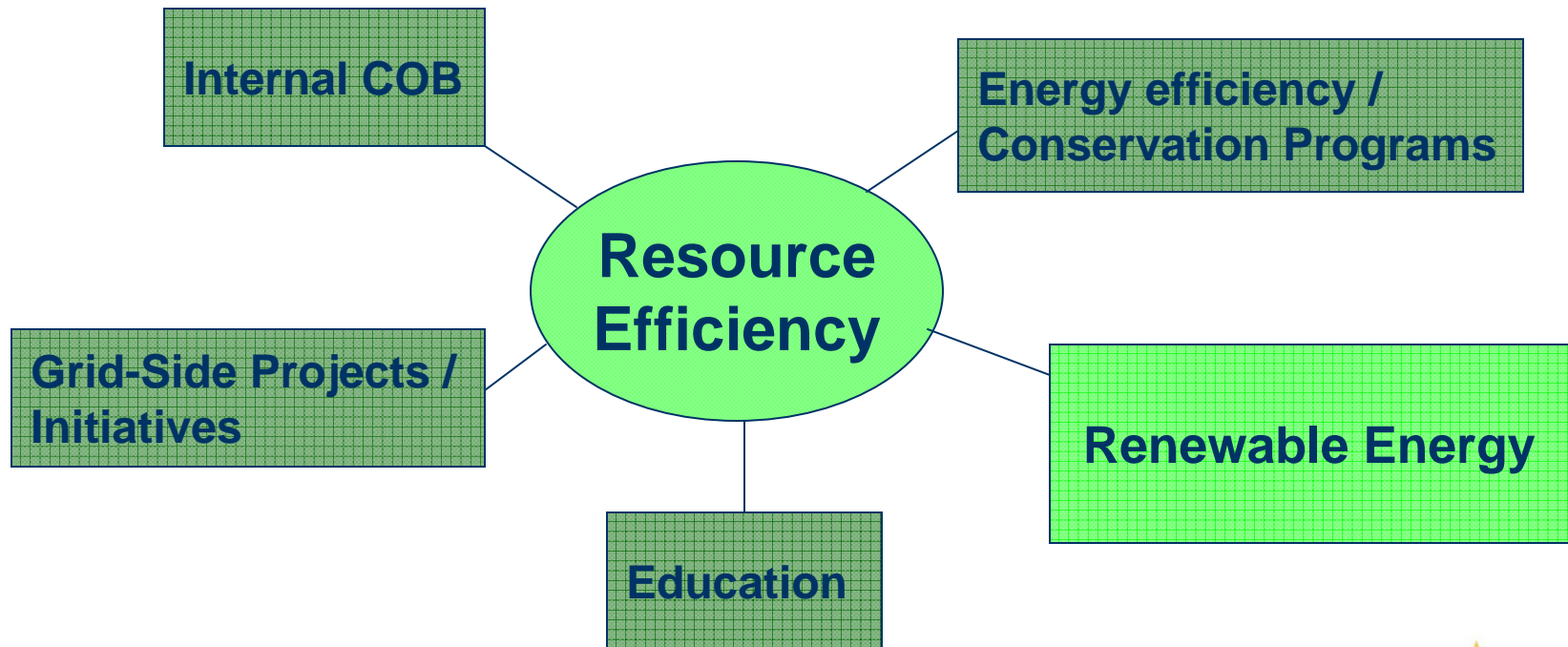
EE / Conservation Programs



EE/C Programs (All Types)

- Reviewed regional (Public Power) programs
- Looked at all rate classes / consumer segments
- Discuss incentives, anticipated participation rates, costs
- Legacy vs. “new technology” approaches
- **Decision – The City of Boerne is currently in the early stages of our Resource Efficiency Plan – we are looking toward future phases to implement this segment of our program.**

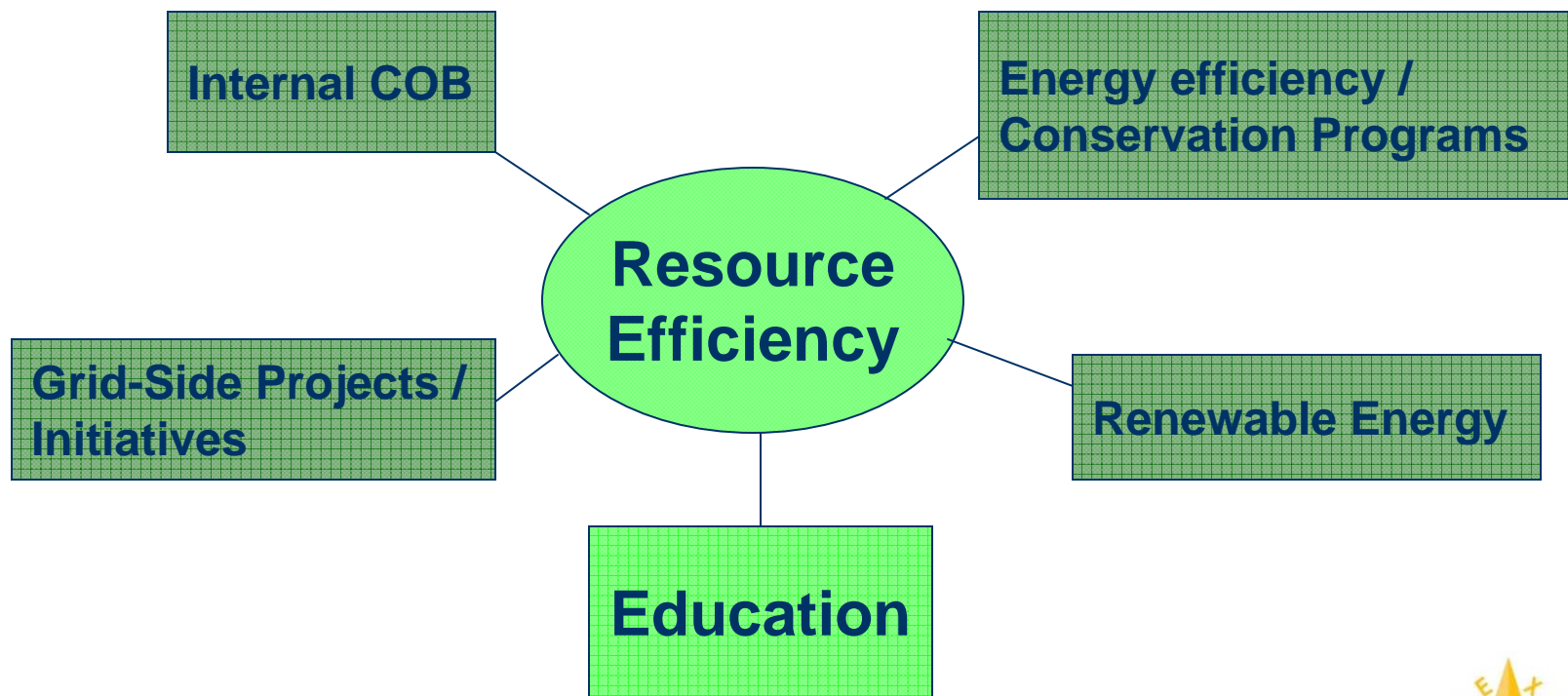
Renewable Energy



Renewable Energy

- Reviewed regional (Public Power) programs
 - Green pricing programs
 - Renewable goals for purchased power
 - Renewable incentives for small renewable DG (wind/solar)
- Analyzed / discussed renewable demonstration projects
- **Decision – The City of Boerne is currently in the early stages of our Resource Efficiency Plan – we are looking toward future phases to implement this segment of our program.**

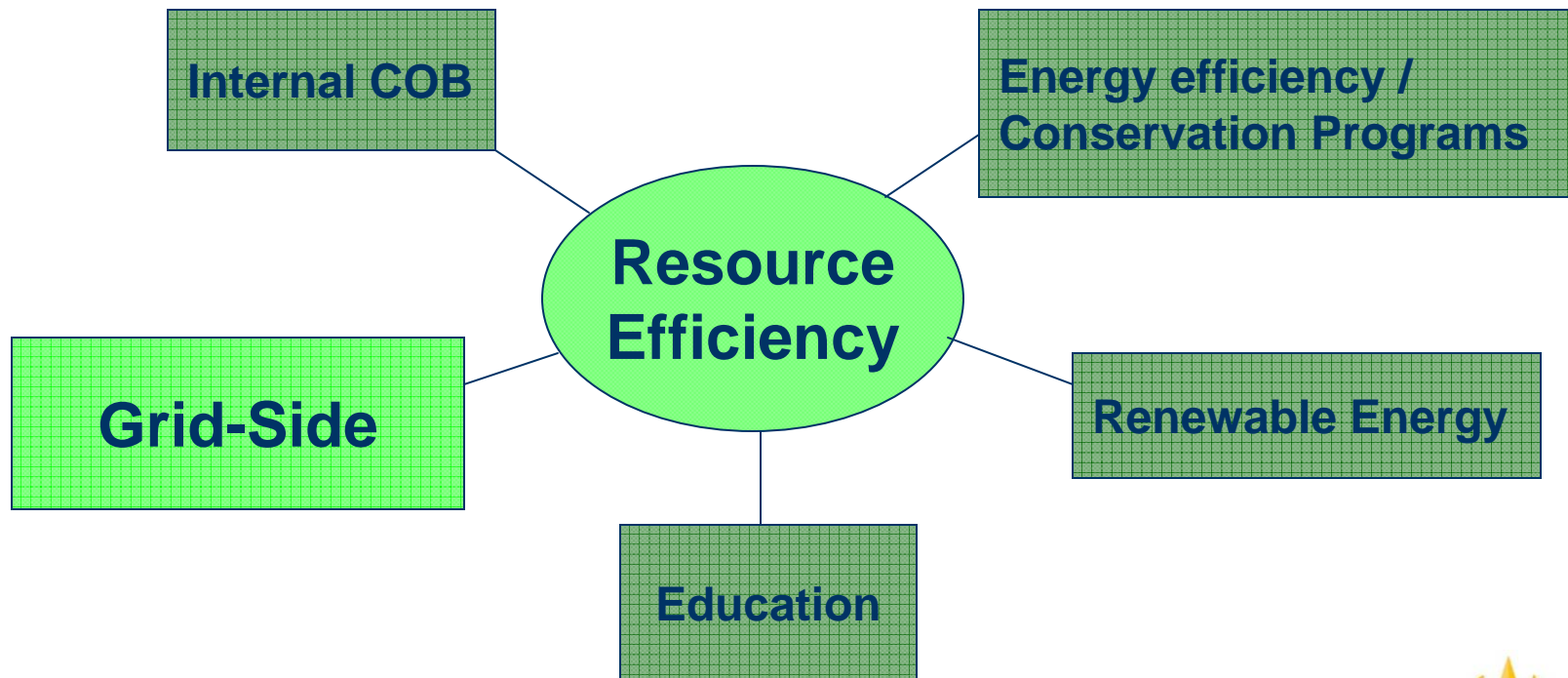
Education



Education

- Schools
 - Curriculum based programs
 - Facilities tracking / analysis
- Internal COB education
- Community education
- **Decision – COB will 1) start employee education; 2) reach out to schools starting next year; 3) start systematic approach to community awareness and education**

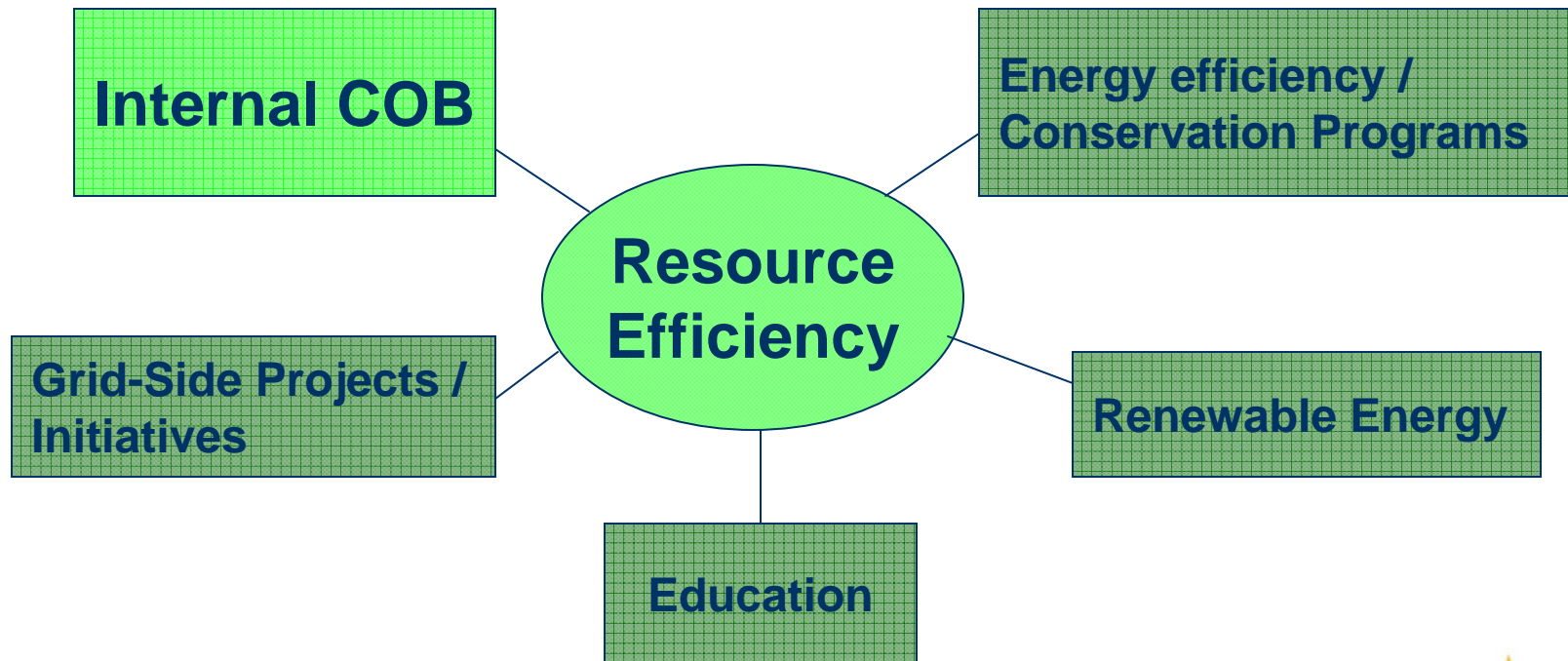
Grid-Side Projects



Grid-Side projects

- COB underway with AMI implementation
- Loss reduction / distribution automation opportunities will be discussed / planned with COB's operations
- **Decision – COB is moving from “pilot” phase to full implementation of AMI system**
- **Once AMI system is installed—COB will implement a portal and assess other potential uses (TOU rates that promote conservation / efficiency at peak times)**

Internal COB



Internal COB

- This is a major focus for year-1 / phase-1
- Some of this effort is recognizing / re-packaging of existing programs / projects
- **Decision:**
 - Continue current Resource Efficiency programs
 - Review all codes for RE opportunities
 - Energy / water use audits for all COB facilities
 - Set up database to track usage at all COB facilities
 - Develop O&M guidelines for COB facilities

Internal COB - Examples

- **New Library – LEED Silver**
 - Rainwater Catchment System
 - Natural Lighting
 - High Efficiency HVAC
- **New Municipal Complex (LEED Standards)**

Other RE Plan Features

- Establish an annual process
 - Set action items / projects / goals for year
 - Sync with annual budget / funding
 - Refresh “future” ideas and potential programs
- Establish a “branded campaign”
 - Helps with employee, customer and community awareness
 - Enables cohesive / unified communications

RE Plan – Vision and Strategies

- *Vision*
 - *Develop a culture within the City of Boerne that promotes resource conservation, efficiency, and sustainability both internally and in the community.*
- Ongoing strategies to accomplish the vision

Lessons learned – SE View

- Look at efficiency / conservation / renewables from all perspectives
- Set up internal team—and make ongoing commitment and annual review / reset
- Establish vision / strategies and annual action list
- Establish a branded campaign
- How will you know when “you’re there”?

Lessons learned – COB View

- Important to establish cross-departmental team
- Take stock / inventory current activities
- Realize that as technology, customer expectations and business environment changes – COB needs to be able to adjust and refocus efforts

Questions?

