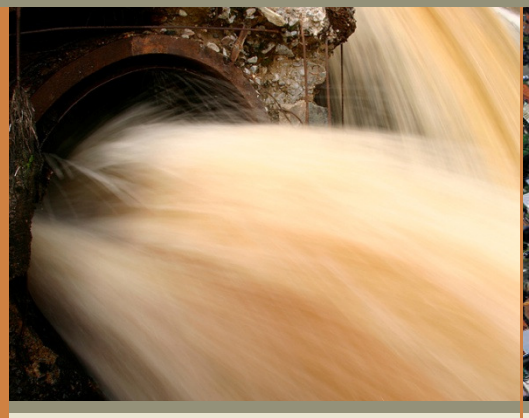
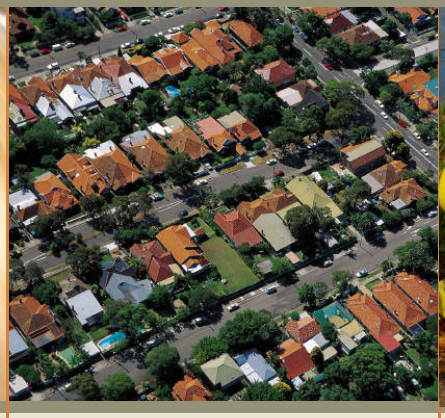

Basics of Financial and Rate Planning for Successful Utility Management

PNWS – AWWA 2010 Annual Conference

May 14, 2010

Presented by Nihat Dogan

FCS GROUP
Solutions-Oriented Consulting

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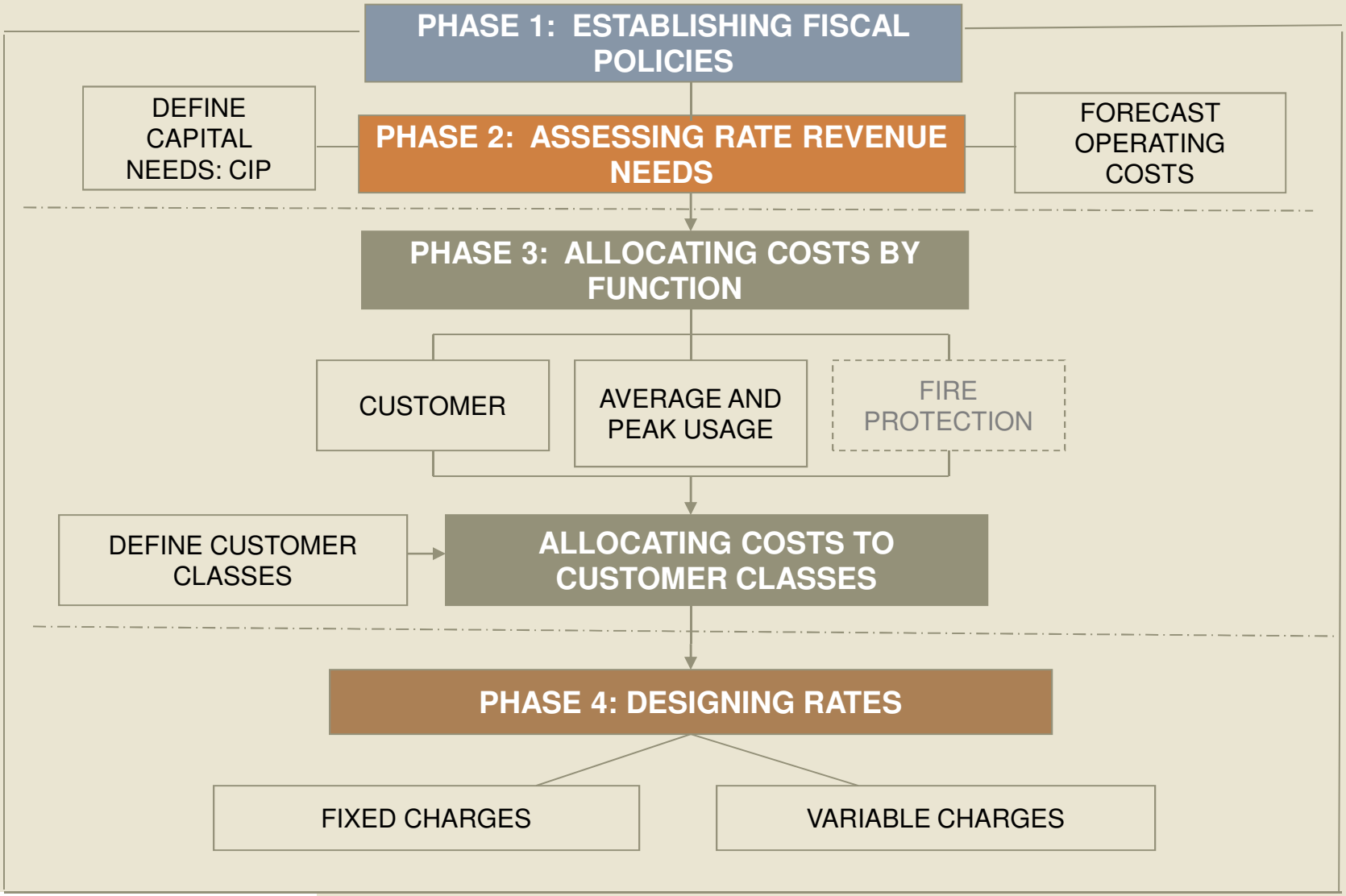
Agenda

- Overview
- Establishing Fiscal Policies
  - ✓ Reserves
  - ✓ System Replacement Funding
  - ✓ Debt Service Coverage
- Assessing Rate Revenue Needs and Long-term Planning

What is the Purpose of a Rate Study?

- ***Solvency*:** To meet the minimum financial requirements and commitments of the utility
- ***Compliance with financial policies*:** To ensure that formal and informal financial policies can be met, such as meeting minimum operating and emergency reserves
- ***Stability*:** To provide long-term stability
- ***Financial planning*:** To provide a secure funding program for planned capital improvements, upgrades, betterments, and system replacements
- ***Long term planning*:** To maintain the long-term health and integrity of the utility system

Overview of Rate Study Process



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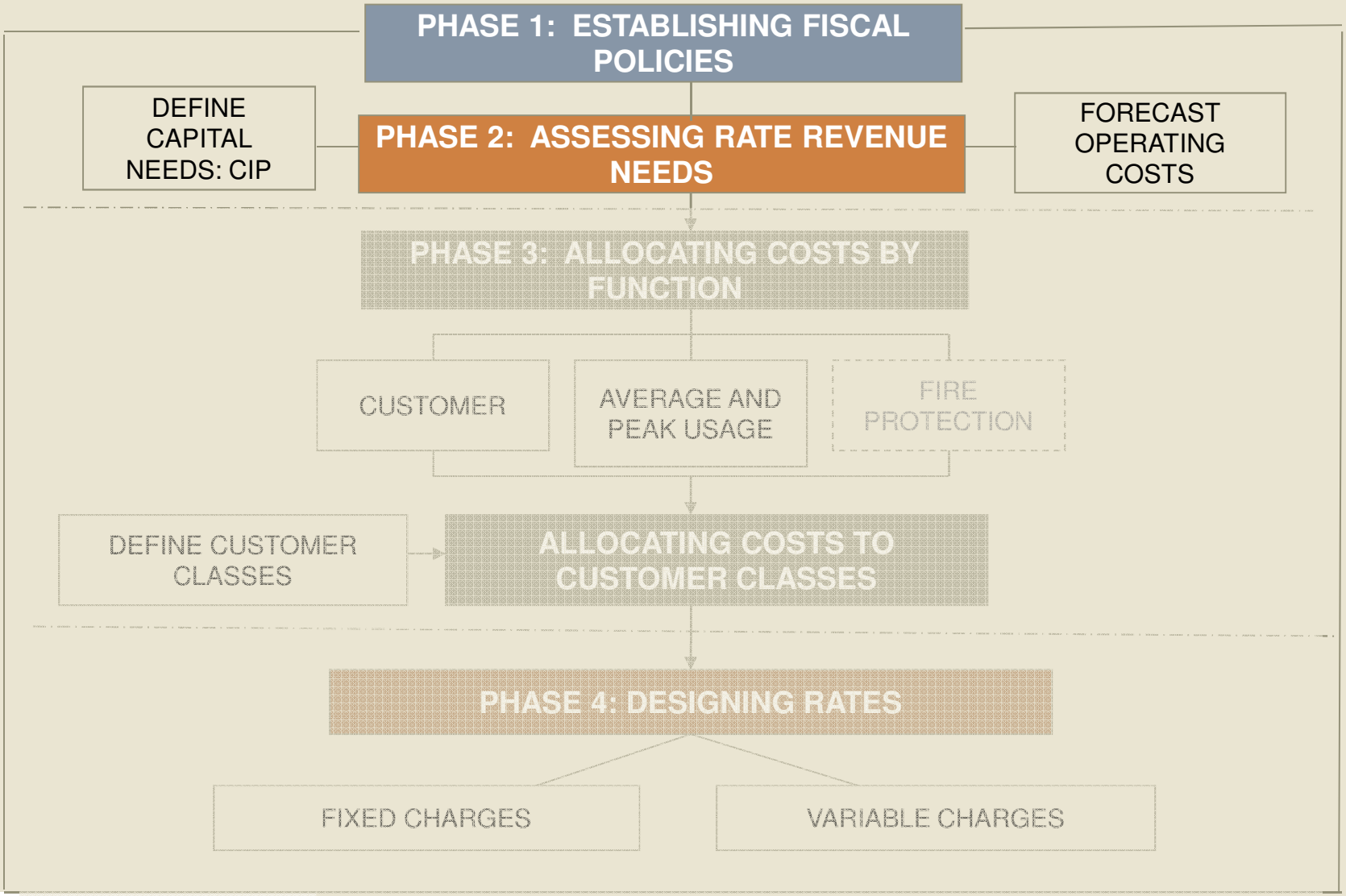
Overview of Rate Study Process



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Phase 1: Establishing Fiscal Policies

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Establishing Fiscal Policies

- What is the purpose of this phase?
  - ✓ To frame how you will financially manage your organization
  - ✓ To establish measurable financial performance benchmarks
  - ✓ To align the vision of all parties involved

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Examples of Fiscal Policies

- Reserves
  - ✓ What type of reserves should you have?
    - Operations
    - Capital
    - Restricted Debt Reserve
    - Rate Stabilization
- What level of reserves is adequate?
- Annual system reinvestment funding
- Debt service coverage ratio

Reserves

	Purpose	Industry Standard
Operating	To provide a liquidity cushion to accommodate for fluctuations in the timing of revenues and expenditures	Maintain a minimum balance equal to 30–90 days of operating & maintenance expense (O&M)
Capital	To provide a source of funding for emergency repairs (other than catastrophic events), and unanticipated capital expenditures and project costs overruns.	1%-2% of Total Utility Asset value
Debt Reserve	To meet requirements established in bond covenants/loan agreements.	Typically requires a reserve balance equal to annual debt service payment
Rate Stabilization	To provide a resource to manage the level of rates and rate increases despite fluctuation in needs from year to year. (Can be written into bond covenants, so use of reserves can help meet coverage requirement)	Expressed as a percent of revenue (10-25%)

System Replacement Funding

- Charge customers commensurate with the consumption of facility useful lives (rate equity)
- Provides a resource for ongoing repair, replacement and rehabilitation of the system
  - ✓ Ensures ongoing system integrity through reinvestment of the system
- Annually fund from an amount from rates and hold in capital account or sinking fund
- System replacement funding benchmarks
  - ✓ Depreciation expense
  - ✓ Depreciation expense net of debt principal
  - ✓ Replacement depreciation

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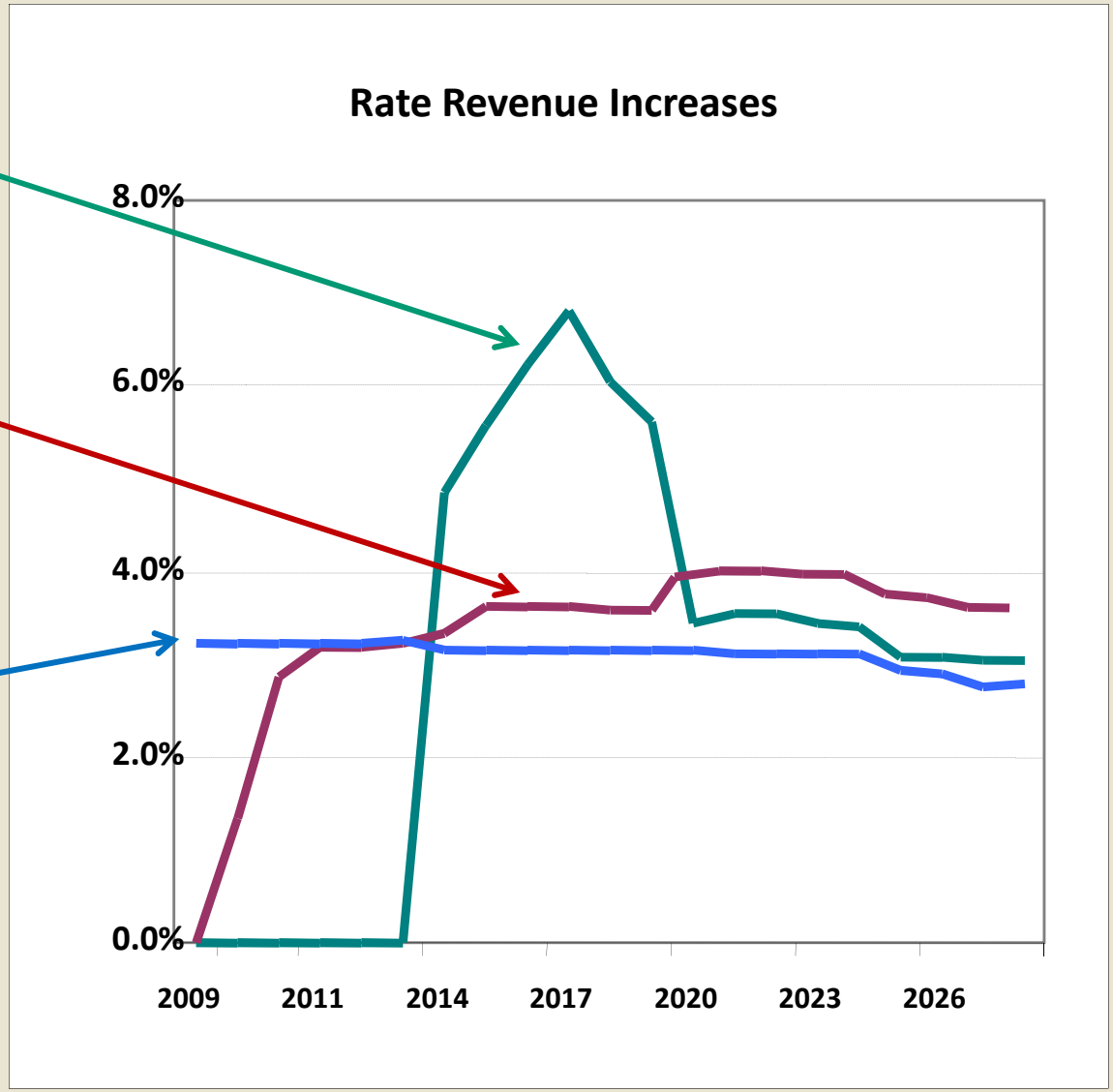
Benefit of System Replacement Funding

- Under a pay-as-you go approach, rates will need to increase to match annual construction needs
- Under a debt-financed approach, rates will need to increase to match annual debt service needs under each new bond issuance
- ✓ System reinvestment funding recognizes annual CIP spending may not be uniform
- ✓ By instituting annual system reinvestment funding, rate adjustments can be smoothed thereby avoiding whipsawing ratepayers



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Debt Service Coverage

- Defined in existing loan/bond covenants
- Can develop internal policy to meet higher level of coverage
- Covenants may allow connection charge revenues to be included in test
  - ✓ Consider excluding connection charges from internal test
- Debt Service Coverage = total revenue less O&M, divided by debt service

A	Total Revenue [*]	$ 2,500,000	$ 2,625,000	$ 2,750,000	$ 3,000,000
B	Operating Expenses	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000
C = (A - B)	Net Revenue or Available for Capital	$ 500,000	$ 625,000	$ 750,000	$ 1,000,000
D	Revenue Bond Debt Service	$ 500,000	$ 500,000	$ 500,000	$ 500,000
C / D	**Debt Service Coverage**	**1.00**	**1.25**	**1.50**	**2.00**

[*] does not include connection charges or beginning fund balance.
[*] excludes pledge of tax collections

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Phase 2: Assessing Rate Revenue Needs and Long-term Planning

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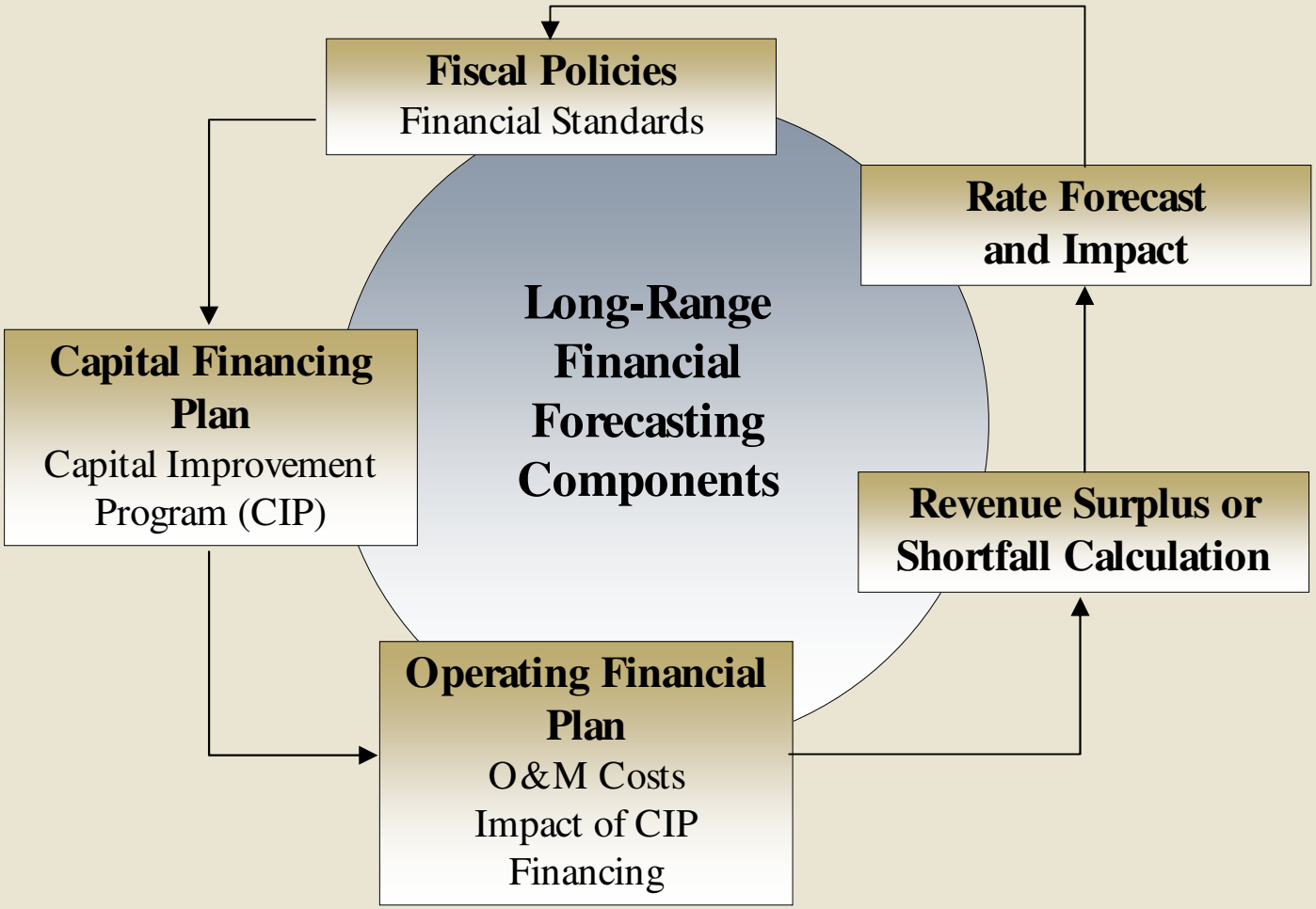
Revenue Requirements

- What is the purpose of this phase?
  - ✓ To determine the amount of annual rate revenue necessary to fund all utility financial obligations
  - ✓ To establish a clear financial plan that communicates:
    - What resources and commitments you have now and into the future
    - The financial deficiency and major causes thereof
    - The funding options for your organization
  - ✓ To establish a framework from which to design rates that will cover the costs of your organization

Revenue Requirement Elements



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Revenue Requirements Elements

- Fiscal Policies
  - ✓ Target reserve levels, debt service coverage, system reinvestment funding
- Capital Costs and Impacts of Capital Financing Plan
  - ✓ Define capital needs
  - ✓ Identify available resources (grants, developer donations, low cost loan programs)
  - ✓ Develop funding strategy (reserves, connection charges, rates, bonds/loans)
  - ✓ Identify annual financial impacts (sensitivity analyses)

Revenue Requirements Elements (continued)

- Operating Costs
  - ✓ Use historical / budget expenditures
  - ✓ Include known operational changes (staffing additions, regulatory program requirements)
  - ✓ Forecast future programs and costs
- Forecast of Revenues
  - ✓ Be careful not to start with beginning balance – one time revenue that can mask rate evaluation
  - ✓ Ongoing revenue should support ongoing needs
- Revenue Requirement = Fiscal Policies + O&M + Debt Service + Rate Funded System Reinvestment

Capital Funding Strategy Development

CAPITAL FUNDING STRATEGY	2010	2011	2012	2013
Capital Projects	**$ 550,000**	**$ 2,500,000**	**$ 400,000**	**$ 425,000**
less: Grants / Developer Donations	-	-	(125,000)	-
Remaining Capital Spending to be Funded	**$ 550,000**	**$ 2,500,000**	**$ 275,000**	**$ 425,000**
Use of Capital Fund Balance	550,000	532,822	275,000	425,000
Unfunded Capital	**$ -**	**$ (1,967,178)**	**$ -**	**$ -**
Revenue Bond Funding	-	2,000,000	-	-

CAPITAL FUND	2010	2011	2012	2013
Beginning Balance	**$ 600,000**	**$ 307,822**	**$ 72,439**	**$ 83,526**
plus: Rate Funded System Reinvestment	200,000	225,000	250,000	400,000
plus: Grants / Developer Donations	-	-	125,000	-
plus: Capital Facilities Charges	35,000	35,000	35,000	35,000
plus: Net Debt Proceeds	-	2,000,000	-	-
plus: Direct Rate Funding	-	-	-	-
plus: Interest Earnings	9,000	4,617	1,087	1,253
plus: Transfer of Surplus fr. Oper. Fund	13,822	-	-	-
less: Capital Expenditures	(550,000)	(2,500,000)	(400,000)	(425,000)
Ending Balance	**$ 307,822**	**$ 72,439**	**$ 83,526**	**$ 94,779**
Minimum Target Balance	$ 285,000	$ 310,000	$ 314,000	$ 318,250

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Financial Forecast and Rate Planning

REVENUE REQUIREMENTS	2010	2011	2012	2013
EXPENSES				
Cash Operating Expenses	$ 800,000	$ 824,000	$ 848,720	$ 874,182
Existing Debt Service	150,000	150,000	150,000	150,000
New Debt Service	-	200,000	200,000	200,000
Rate-funded System Replacement	200,000	225,000	250,000	400,000
TOTAL EXPENSES	**$ 1,150,000**	**$ 1,399,000**	**$ 1,448,720**	**$ 1,624,182**
REVENUES				
Rate Revenues	$ 1,180,000	$ 1,209,500	$ 1,239,738	$ 1,270,731
Non-rate Revenues	3,000	3,090	3,182	3,275
TOTAL REVENUES	**$ 1,183,000**	**$ 1,212,590**	**$ 1,242,920**	**$ 1,274,006**
NET SURPLUS / (DEFICIENCY)	$ 33,000	$ (186,410)	$ (205,800)	$ (350,176)
Annual Rate Increases	**0.00%**	**15.41%**	**1.03%**	**9.40%**
Cumulative Rate Increases	0.00%	15.41%	16.60%	27.56%
RATE STRATEGY				
Annual Rate Increases	**0.00%**	**10.00%**	**7.75%**	**7.75%**
Cumulative Rate Increases	0.00%	10.00%	18.53%	27.71%

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Financial Forecast and Rate Planning

RATE STRATEGY	2010	2011	2012	2013
Annual Rate Increases	**0.00%**	**10.00%**	**7.75%**	**7.75%**
Rate Revenues After Rate Increase	$ 1,180,000	$ 1,330,450	$ 1,469,399	$ 1,622,859
Net Cash Flow After Rate Increase	33,000	(65,460)	23,861	1,952

OPERATING FUND	2010	2011	2012	2013
Beginning Balance	**$ 200,000**	**$ 219,178**	**$ 153,718**	**$ 177,580**
plus: Net Cash Flow After Rate Increase	33,000	(65,460)	23,861	1,952
less: Transfer of Surplus to Capital Fund	(13,822)	-	-	-
Ending Balance	**$ 219,178**	**$ 153,718**	**$ 177,580**	**$ 179,532**
Min. Operating Target Balance (60 days)	$ 131,507	$ 135,452	$ 139,516	$ 143,701
Max. Operating Balance (100 days)	$ 219,178	$ 225,753	$ 232,526	$ 239,502
Info: No of Days Achieved	*100*	*68*	*76*	*75*

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Summary of Rate Planning

- Plan for long-term
  - ✓ A lot of utilities look at the budget year and stop
    - – Too short a time frame, always playing catch up
    - – Ability look ahead 3, 5, 10 years allows more thoughtful planning and fewer surprises
- Assess progress against your long-term plan
  - ✓ Check every couple year to ensure actuals are in line with forecast

Questions

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About the Speaker

NIHAT DOGAN

Project Manager

Nihat is a project manager at FCS GROUP and has over 18 years of professional experience in the field of finance, including 8 years at FCS GROUP . He is experienced in statistical modeling and forecasting, economic analysis, financial planning and budgeting. He has performed utility financial modeling and rate design, connection charge / impact fee reviews, and revenue requirement and cost of service analyses for cities and districts.

Nihat can be reached at (253) 209-4765 or nihatd@fcsgroup.com