

DTE Energy[®]



CEWD National Forum

Retraining Employees at DTE Energy

Columbus, Ohio

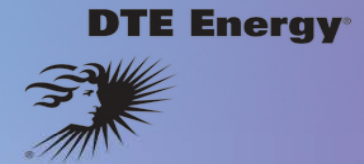
August, 2010



Executive Overview

- Poor EEI test results by internal and external candidates is a problem for DTE Energy as well as other Utilities
- Candidates lack fundamental knowledge/skill in math, reading, spatial concepts to name a few
- Benchmark Utility companies are developing countermeasures to attack the problem independently, and rely on both internal and external resources to deliver
- Worked with potential partners (community colleges) and have identified curriculum and locations for delivery
- In collaboration with Union and Management actual implementation steps are underway
- Delivery of training scheduled for September 2010

The testing activities that are performed on the job classifications within our current Critical Pipelines show less than a 60% pass rate



Critical Pipelines	CAST	MASS	POSS	SOPD	Pole Climbing
Apprentice Splicer	X				X
Apprentice Lineman	X				X
Assistant Substation Operator	X				
System Supervisor I				X	
Fuel Supply Operator			X		
Maintenance Journeyman		X			
Instrument & Control Tech A		X			
Power Plant Operator			X		
Nuclear Maintenance Journeyman			X		
Nuclear Operator			X		
Radiation Protection Tech					
Sr. Technician Controls					
Jr. Gas Controller					
Overall Test Pass Rates	51%	56%	45%	59%	

CAST

Graphic Arithmetic
 Mathematical Usage
 Mechanical Concepts
 Reading for Comprehension

MASS

Assembly/Spatial Ability
 Mechanical Concepts
 Reading Comprehension
 Mathematical Usage – Short Version
 Background & Opinion Questionnaire

POSS

Assembly/Spatial Ability
 Mechanical Concepts
 Reading Comprehension
 Mathematical Usage – Long Version
 Tables and Graphs

SOPD

Applied Arithmetic Placement
 Electrical Knowledge
 Mathematical Usage
 Numerical Reasoning
 Verbal Reasoning



Benchmark results

We are in the process of benchmarking other Utility companies

- Electronic surveys distributed to EEI Testing Consortium members (approximately 30 companies) and the Electric Utility HR Metrics Group
 - 15 companies surveyed have responded to date (submitted Wednesday, April 14th). Companies include: Ameren, Arizona Public Service, Mirant, Progress Energy, WE Energies
- Insights-to-date:
 - Several Utilities are in exploration stage; or, are providing training support to employees for basic skills (e.g., math, mechanical knowledge, reading comprehension)
 - Companies are developing courses in-house to address immediate short-term needs (e.g., automated meter reading), but utilizing community colleges for long-term workforce development needs

Specifically, other Utilities are advising us that...

- 62% of companies responded they have either developed training, or are working with colleges, to address training needs; 46% are currently working with high schools
- More than 67% of companies surveyed are supporting employee training on all academic competencies (e.g., math, reading, critical thinking, engineering and technology)
- Depending on the specific competency, 25% or more of the companies are training employees on-site
- 50% of the companies responded that the training initiatives have resulted in a positive effect on employee performance; the other 50% stated they either don't know, or its too early to tell

Union members (students) feedback mechanism

1. Default Section

DTE Energy's Technical Training department is working with the Michigan Consortium of Community Colleges to address employee training needs. You are being asked to provide your input on the training. Your responses to the questions below will enable the Technical Training and Community College staff to design a better system to meet employee's needs.

Your input is confidential, so personal information is requested.

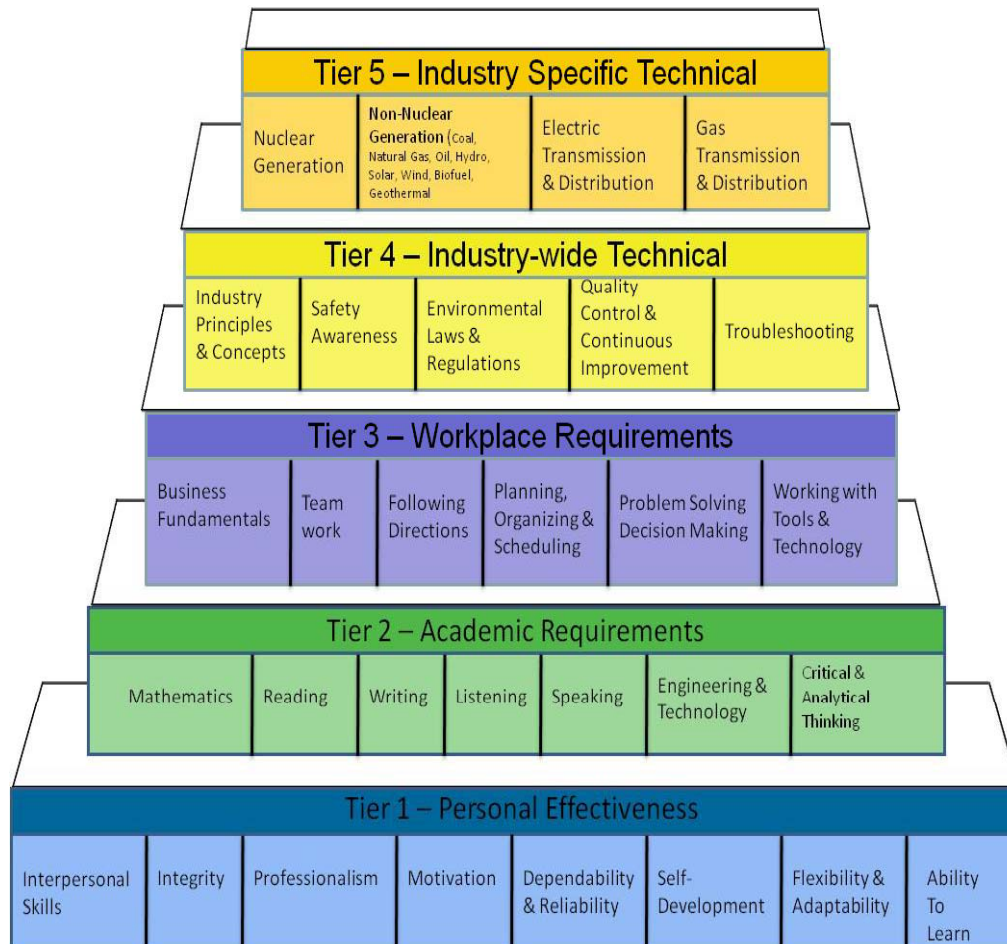
1. For each competency please indicate if you would like to receive more training.

	No	Maybe	Yes
Math - addition, subtraction, multiplication, division	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Math - long fractions and decimals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Math - algebra	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Math - geometry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Math - trigonometry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reading - locating, reading and using information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing - using standard business English to write messages to co-workers and reports to managers and associates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Listening - listening carefully to interpret information into the workplace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Speaking - communicating in spoken English well enough to be understood by supervisors, co-workers and customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engineering and Technology - possessing an appropriate amount of knowledge, technical skills, modern tools and advanced technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical and Analytical thinking - using logical thought processes to analyze information and draw conclusions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Oral Presentation/Spatial Visualization Ability - the ability to mentally manipulate 3-dimensional and 2-dimensional figures, or visualize the properly assembled form of an object	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Basic Computer Function and specific applications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify):	<input type="text"/>		

SURVEY SAYS!!!

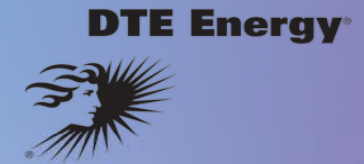
- 38 % response rate to date
- Desire training for all the basic tier 1 skills
- Majority fine with any location; CC campuses IS the least favored
- OK with a variety/mix of deliver options
- Prefer class on weekends and evenings (not before OR immediately after work)

At DTE Energy, we can focus on creating a learning curriculum that enhances skills and abilities in line with the CEWD Competency model



- DTE has been working with this model to define the skills and competencies for our critical pipelines.
- DTE is working closely with the Michigan Utility Workforce Consortium to identify the community colleges for materials.
- We are focused in the first 3 tiers of this model. Tier 2 in specific shows the largest gap (next slide)
- Depending on volume, this can be delivered internally or within the community college network (close to employee homes and work location)
- The Union has been involved and agrees with development direction

The alignment with our education partners comes from the details within the CEWD model



ACADEMIC COMPETENCIES

1. Mathematics: Using mathematics to solve problems

- Adds, subtracts, multiplies and divides with whole numbers, fractions, decimals and percents; calculates averages, ratios, proportions and rates **CAST, CSR, MASS, POSS, SOPD, TECH**
- Takes measurement of time, temperature, distance, length, width, height, perimeter, etc
- Correctly converts from one measurement to another **CAST, CSR, MASS, POSS, SOPD,**
- Translates practical problems into useful mathematical expressions and uses appropriate mathematical formulas and techniques **CAST, CSR, MASS, POSS, SOPD, TECH**
- Solves simple algebraic equations **CAST, CSR, MASS, POSS, SOPD, TECH**
- Is able to determine slope, midpoint, and distance
- Calculates perimeters, areas and volumes of basic shapes and solids
- Reads, tracks, and calculates gauge measurements

2. Locating, Reading and Using Information: Knowing how to find information and identifying essential information

- Sorts through distracting information **CAST, CSR, MASS, POSS**
- Scans written material for subject of interest **CAST, CSR, MASS, POSS, TECH**
- Is able to identify main ideas in written material **CAST, MASS, POSS, SOPD, TECH**
- Correctly interprets written material **CAST, MASS, POSS, SOPD, TECH**
- Integrates what is learned from written materials with prior knowledge
- Applies what is learned from the written material to complete specific tasks **CSR**

3. Writing: Using standard business English to write messages to co-workers and reports to managers and associates

- Creates documents such as work orders or memos
- Uses standard syntax and sentence structure, correct spelling, punctuation and capitalization and appropriate grammar
- Writes clearly and concisely in a professional and courteous manner
- Writes effective for a variety of audiences
- Communicates thoughts, ideas, information which may contain technical material in a logical, organized and coherent manner
- Clearly develops ideas and elaborates on them with relevant supporting examples and specific details
- Shows insight, perception and depth in writing

4. Listening: Listening carefully in order to incorporate information into work activities

- Listens carefully to others **CSR**
- Correctly interprets information provided by others **CSR**
- Is able to incorporate information into actions

5. Speaking: Communicating in spoken English well enough to be understood by supervisors, co-workers and customers

- Uses standard sentence structure and appropriate grammar **CSR**
- Speaks clearly, in precise language and in a logical organized and coherent manner **CSR**
- Keeps language simple and appropriate for the audience's level of knowledge of the subject **CSR**

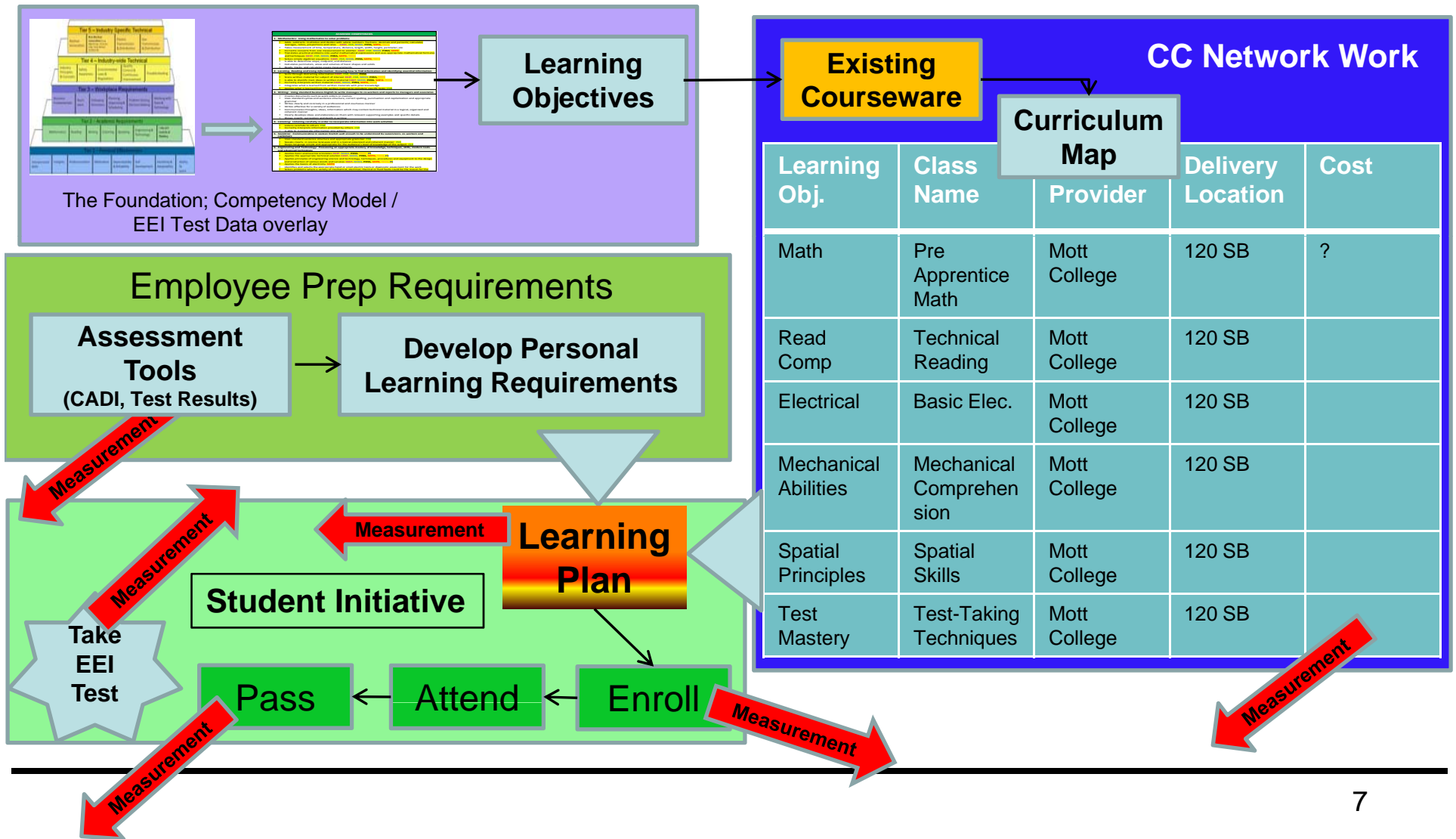
6. Engineering and Technology: Possessing an appropriate mastery of knowledge, techniques, skills, modern tools and advanced technology

- Applies basic engineering principles **CAST, MASS, POSS, TECH, FS**
- Applies the appropriate technical solution **CAST, MASS, POSS, SOPD, TECH, FS**
- Applies principles of engineering science and technology, techniques, procedures and equipment to the design and production of various goods and services **CAST, MASS, POSS, SOPD, TECH, FS**
- Applies the basics of electricity **SOPD**
- Identifies and selects the appropriate hand or small electric tools or diagnostic equipment for the work
- Solves problems where a variety of mechanical, electrical, thermal or fluid faults could be the reason for the

- Level 2 “Academic Competencies” learning objectives that matched our testing results
- This detail was shared with the Consortium community college partners to identify applicable courses



Employee Learning Product Map



Based on our work to date with the community college network, here's a look at the course match to location



Community College	LCC	SC4	HFCC	MCCC	Macomb CC	OCCC	Delta	Alpena CC	Bay CC	KVCC	WCCC
Math	1 ILT, 1 Web	1 ILT	5 ILT, 5 Web	2 Web	1 ILT, 1 Web		6 ILT			2 ILT, 1 Web	
Reading	1 ILT	1 ILT	1 ILT, 2 Web	3 Web	1 ILT, 1 Web		2 ILT			2 ILT, 1 Web	
Prob. Solv.	1 ILT	3 ILT	3 ILT, 3 Web	2 Web	1 ILT, 1 Web		4 ILT			4 ILT	
Spatial Config.	1 ILT		1 ILT, 2 Web		1 ILT		1 ILT			1 ILT	
Mechanical Ability	1 ILT		2 ILT, 1 Web	4 Web	1 ILT		3 ILT			2 ILT	
Pre-Apprenticeship Course	1 ILT						1 ILT				
CAST Test Prep Course											1 ILT
ILT = Instructor Led Training courses available											
Web = Web Based Training courses available											
LCC = Lansing Community College			Macomb = Macomb County Community College				Bay CC = Bay Community College				
SC4 = St Clair County Community College			OCCC = Oakland County Community College				KVCC = Kalamazoo Valley Community College				
HFCC = Henry Ford Community College			Delta = Delta College				WCCC = Wayne County Community College				
MCCC = Monroe County Community College			Alpena CC = Alpena Community College								

- Our gap analysis indicated what we need the network to deliver
- Existing courses and materials are already available
- The delivery can be done “on location” at DTE or at any community college
- We’re using the same network and philosophy as awarded in our DOE training Grant (FOA 0000152)
- External pipeline / network development is the next step to improve our new hire test results

(Original information. This Network is now superseded by SMC3. See slide #10)

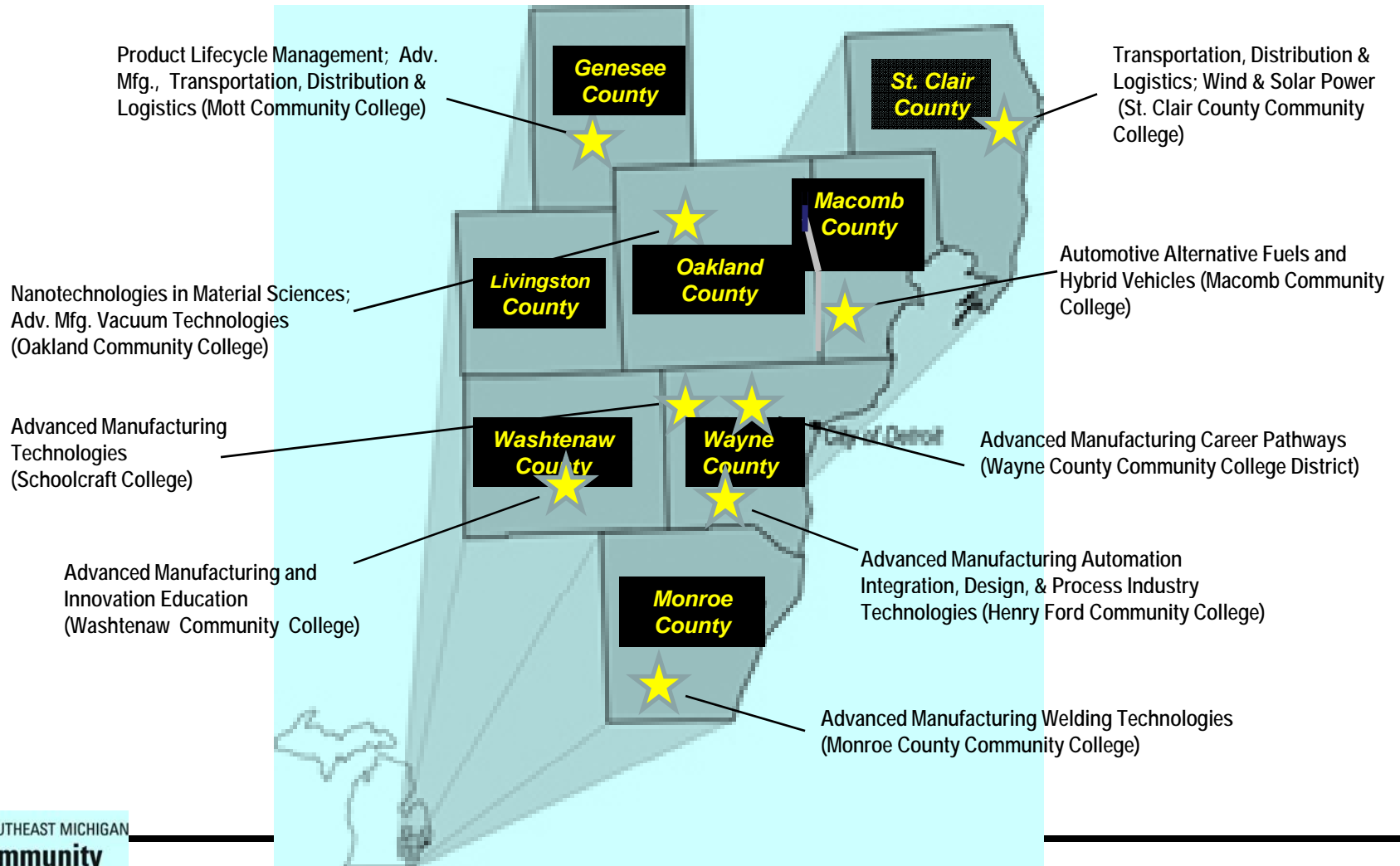
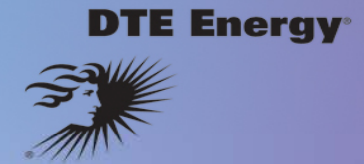


Curriculum Map – Pre-Apprentice Training

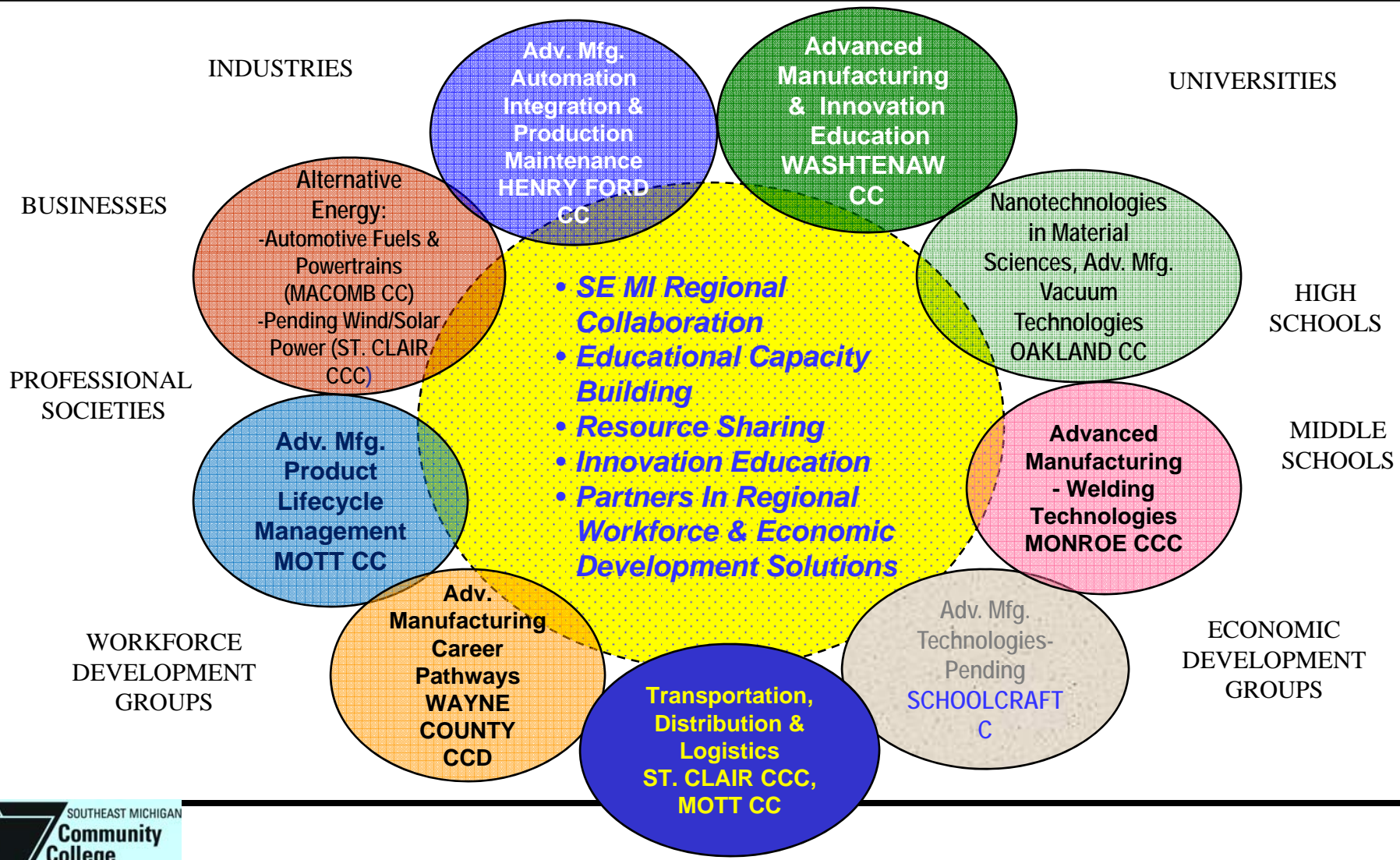
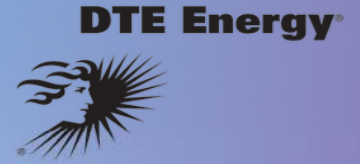
Learning Obj.	Class Name	Provider	Delivery Location	Cost
Math	Pre Apprentice Math	Mott College	120 SB	?
Read Comp	Technical Reading	Mott College	120 SB	
Electrical	Basic Elec.	Mott College	120 SB	
Mechanical Abilities	Mechanical Comprehension	Mott College	120 SB	
Spatial Principles	Spatial Skills	Mott College	120 SB	
Test Mastery	Test-Taking Techniques	Mott College	120 SB	

- Who are the partners?
 - SMC3 and Mott Community College. Mott CC has a Pre-Apprentice set of courseware that covers all phases of the EEI testing.
- Working with SMC3 and Mott CC to set the ground work for the following:
 - Courses can be delivered on the DTE Campus – 120 SB. Tuesday and Thursday evenings and again on Saturdays. Starting Sept 14, 2010.
- What do we feel the cost is?
 - Under discussion with SMC3 and Mott CC.

DEVELOPING SMC3 REGIONAL CENTERS OF EXPERTISE MODEL

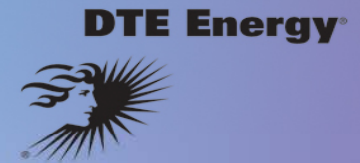


DEVELOPING SMC3 REGIONAL CENTERS OF EXPERTISE MODEL



What's our time line and who's helping...

UPDATED July 28, 2010



Action Required	Who's Involved	ETA	Status
Leverage the Consortium; Community College network	Ray Kelly; Al Lenz, WCCC	April 21	Completed
Develop learning requirements from test information	Steve Runde	April 15	Completed
Overlay learning requirements on CEWD Competencies	Steve Runde, Steve Kujala	April 16	Completed
Schedule and complete conversation with the Community College network	Steve Kujala	April 21	Completed
Build curriculum map; ID locations, courses, methods of deliver, etc with community colleges	Steve Kujala	April 30 July 30	In progress, on revised target
Define employee assessment tools	Steve Runde	May 7	Completed
Develop/Deploy/Aggregate benchmark information	Steve Runde	May 30	Completed
Discuss program with Union Leaders/Communicate program	Ray, Steve and Steve	Throughout Initiative	On going, on target
Launch ready	Ray, Steve, Steve, Union	June Early August	In progress, on revised target
Begin employee assessment activity (Aug 10, 11, 14, 20, 27 are potential dates)	Steve Runde	Mid August	Planning in progress
Review employee assessment results; build employee learning plan	Steve Runde/ Steve Kujala	Late August	
Student enrollment	Employees	Summer Late August	Revised target



As of August 2nd, here is the work in progress

- Curriculum mapping
 - WCCCD has accepted the delivery role.
 - Tues/Thurs, 6 – 8 PM and/or Saturday, 8 to 12 PM. Daily content TBD
 - 120 SB
 - Future, any SMC3 college can/will deliver
 - Work remains to identify learning activity by session
- Learning Plan Development
 - Establishing the list of EE
 - CADI dates set for this round
 - For Large Groups
 - August 10 General Offices Auditorium
 - August 11 Allen Road Rec Center
 - August 20 Allen Road Rec Center
 - Learning plan work with each EE
 - CADI report review sessions, Aug 24
 - Use results from existing CADI or EEI tests
 - Enrollment specifics evolving with WCCCD