For office use only	Ieam Control Number	For office use only
T1	91397	F1
T2		F2
T3	Problem Chosen	F3
T4	$\boldsymbol{C}$	F4

# 2018 MCM/ICM Summary Sheet

# Summary

abstract

**Keywords**: keyword1; keyword2

Team # 91397

# **Contents**

1	Introduction			1
2	Energy Profile			
	2.1	Overv	iew	1
	2.2	title .		1
		2.2.1	Arizona	1
		2.2.2	California	2
		2.2.3	New Mexico	3
		2.2.4	Texas	4
Appendices				2
ΑĮ	peno	dix A	First appendix	2
Αį	peno	dix B	Second appendix	2

Team # 91397 Page 1 of 3

## 1 Introduction

# 2 Energy Profile

## 2.1 Overview

## 2.2 title

### 2.2.1 Arizona

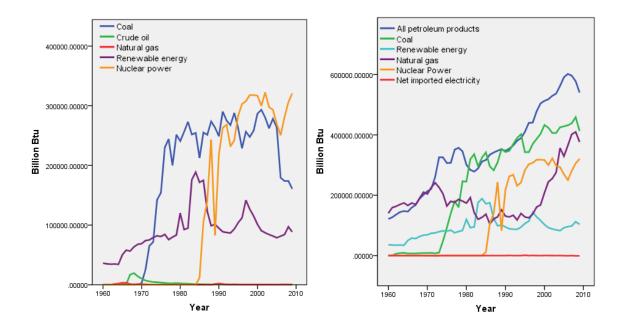


Figure 1: AZPRB

Figure 2: AZTCB

Team # 91397 Page 2 of 3

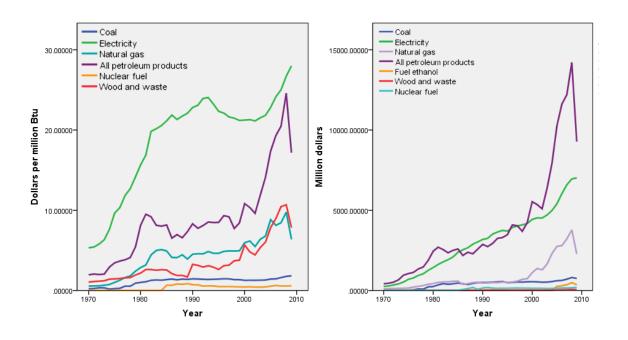


Figure 3: AZTCD

Figure 4: AZTCV

## 2.2.2 California

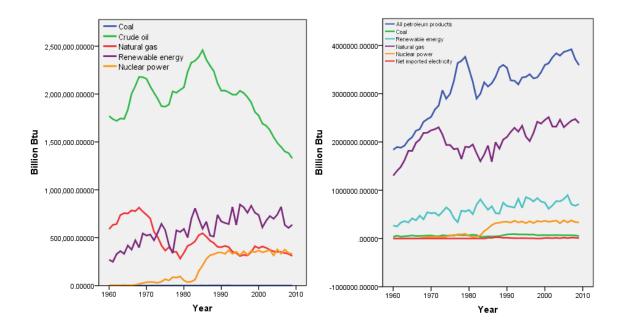


Figure 5: CAPRB

Figure 6: CATCB

Team # 91397 Page 3 of 3

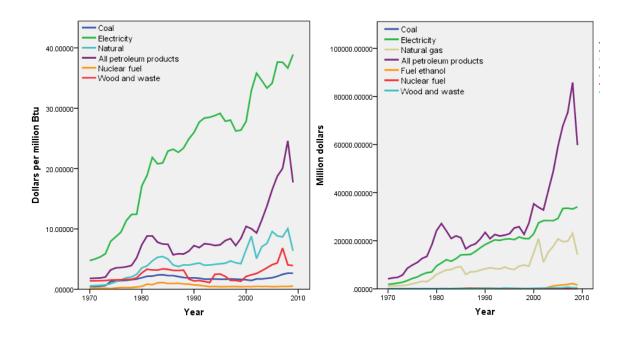


Figure 7: CATCD

Figure 8: CATCV

### 2.2.3 New Mexico

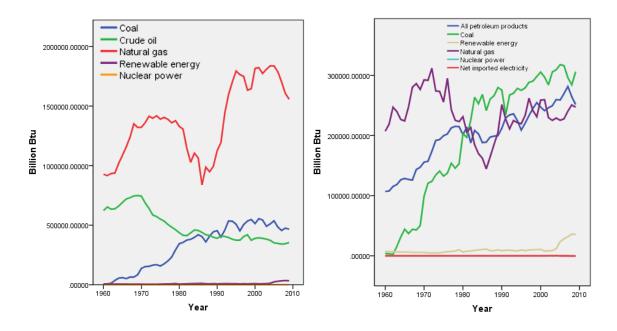


Figure 9: NMPRB

Figure 10: NMTCB

Team # 91397 Page 4 of 3

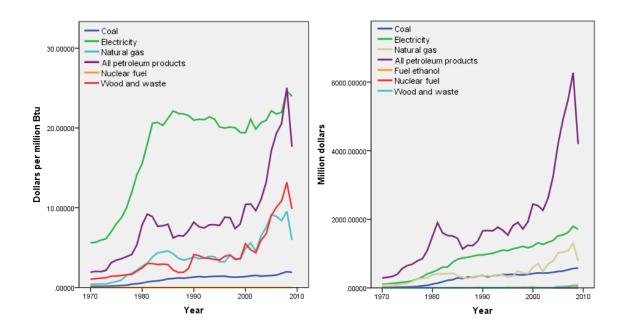


Figure 11: NMTCD

Figure 12: NMTCV

### 2.2.4 Texas

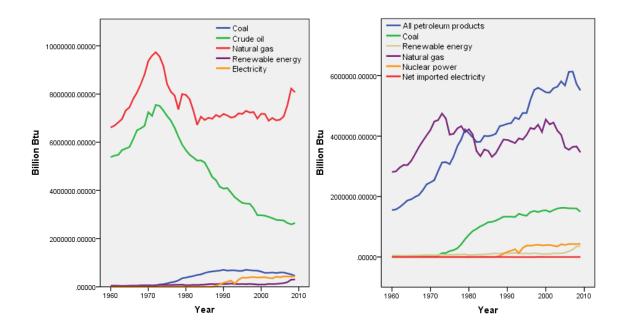


Figure 13: TXPRB

Figure 14: TXTCB

Team # 91397 Page 5 of 3

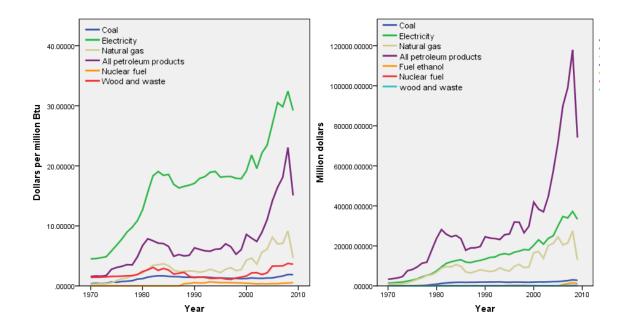


Figure 15: TXTCD

Figure 16: TXTCV

Team # 91397 ii

# **Appendices**

Proof. 
$$x$$

**Lemma 1.** If  $f \in C_L^{1,1}(\mathbb{R}^n)$ , then  $\forall x, y \in \mathbb{R}^n$  we have

$$\left| f(\mathbf{y}) - f(\mathbf{x}) - \nabla f(\mathbf{x})^T (\mathbf{y} - \mathbf{x}) \right| \le \frac{L}{2} \left\| \mathbf{y} - \mathbf{x} \right\|^2. \tag{1}$$

## Appendix A First appendix

Aliquam lectus. Vivamus leo. Quisque ornare tellus ullamcorper nulla. Mauris porttitor pharetra tortor. Sed fringilla justo sed mauris. Mauris tellus. Sed non leo. Nullam elementum, magna in cursus sodales, augue est scelerisque sapien, venenatis congue nulla arcu et pede. Ut suscipit enim vel sapien. Donec congue. Maecenas urna mi, suscipit in, placerat ut, vestibulum ut, massa. Fusce ultrices nulla et nisl.

Here are simulation programmes we used in our model as follow.

#### Input matlab source:

```
function [t, seat, aisle] = OI6Sim(n, target, seated)
pab=rand(1, n);
for i=1:n
    if pab(i) < 0.4
        aisleTime(i) = 0;
else
        aisleTime(i) = trirnd(3.2,7.1,38.7);
end
end</pre>
```

## Appendix B Second appendix

#### some more text **Input C++ source**:

Team # 91397 iii

```
for(int i = 0; i < 9; i++) {
    table[0][i] = i + 1;
}

srand((unsigned int)time(NULL));

shuffle((int *)&table[0], 9);

while(!put_line(1))
{
    shuffle((int *)&table[0], 9);
}

for(int x = 0; x < 9; x++) {
    for(int y = 0; y < 9; y++) {
       cout << table[x][y] << " ";
    }

    cout << endl;
}

return 0;
}</pre>
```